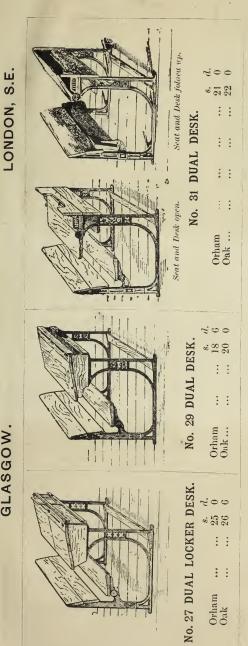
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# GUIDE

TO THE

# ESTABLISHMENT AND EQUIPMENT

OF

# ART CLASSES

AND

# SCHOOLS OF ART

WITH ESTIMATES OF PROBABLE COST, ETC.

BY

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#### PREFACE.

THE aim followed in the preparation of this Guide has been to put together such information as is required by those who find themselves entrusted with the establishment and equipment of art classes or schools of art. Something has therefore to be said concerning the rooms in which classes are to meet, the lighting and general arrangements, concerning the furniture and fittings, the casts, examples, and books of reference. Then a few words are devoted to secretarial work, to registration and classification. The relationship to South Kensington is touched upon, but only in an initial manner, since the "Directory" is itself precise and intelligible enough. It need hardly be said that all connected in a managerial sense with a school of art or an art class should read up the "Directory."

There will be occasion to mention the publications of certain firms. It is almost impossible to avoid doing this, and there is perhaps no reason why such an avoidance should be sought; but the reader must bear in mind that all such references are made purely for convenience, and because the writer has come across these names in his inquiries, and therefore it must neither be taken that things mentioned are recommended above others, or that things not mentioned are deemed unfit or defective. The writer has not felt it necessary to hunt up every publication, and has rested content when he has found a list sufficient for his purpose.

So long as the present system of "payment by results" obtains, will committees want to feel that they are prepared at all points for earning as much grant as possible. The assistance of the county councils has happily widened the scope of our schools and relieved them of some, at least, of the pressure of the incubus of grant-earning, therefore suggestions are made beyond the seeming limits of the Government syllabuses.

As far as possible, the cost of the various items recommended has been given. The cost of furniture is, however, so uncertain that the figures given must be regarded as rough estimates. Committees will find that sometimes they can get better terms by engaging joiners or by contracting with local firms. The cost of packing and carriage has been almost

without exception omitted. This item will have to be added wherever the things come from a distance.

It has been felt that it would be unnecessary to give the equipment for a school of more than moderate size, so that the various items recommended are to be regarded as the minimum requirements, and not as a full list of those things which it is desirable to have in an art school.



# CONTENTS.

CHAPTER		PAGE
I.	THE RELATION OF THE CLASS OR SCHOOL TO THE	
	DEPARTMENT OF SCIENCE AND ART	1
II.	REQUIREMENTS OF A MODERATE-SIZED ART SCHOOL	81
III.	A School of Art—The Building	36
IV.	FURNITURE FOR STUDENTS' USE	42
	" FOR SUPPORTING EXAMPLES	49
	Other Necessary Furniture	57
v.	Copies and Models necessary for Teaching	
	Freehand, Model, Geometry, and Perspective	64
VI.	Casts	74
VII.	EXPENDITURE CONNECTED WITH THE TEACHING OF	
	Advanced Subjects	86
VIII.	ART CLASS EQUIPMENT—ELEMENTARY SUBJECTS	95
	,, Intermediate Subjects	108



## GUIDE

# TO THE ESTABLISHMENT AND EQUIPMENT OF ART CLASSES AND SCHOOLS OF ART.

#### CHAPTER I.

THE RELATION OF THE CLASS OR SCHOOL TO THE DEPARTMENT OF SCIENCE AND ART.

THE GOVERNMENT REGULATIONS.

I.

Definition of a School of Art and an Art Class.

"A School of Art must be under public manage-"ment and held in rooms approved by the Depart-"ment, which are wholly devoted to elementary and "advanced instruction in Art. The school must be "adequately supplied with apparatus and examples, "and be always open for study and the inspection "of the Art examples" ("Directory," ch. iii. para. 3).

"In Schools of Art both Day and Night Classes" must be held, and there must be a Night Class for

"Artisans meeting under the instruction of the "master for two hours at least three times a week "during forty weeks in the year" ("Directory," ch. iii. para. 6).

"An Art Class may be held in a Mechanics' "Institute, School, or other Public Institution; but "it must be adequately supplied with apparatus and "examples for instruction" ("Directory," ch. iii. para. 4.).

"Every School or Class must be under the super"intendence and management of a Local Committee,
"who are responsible for the engagement, employ"ment, and payment of the teacher or teachers, and
"for all other expenses connected with it. It must
"not be conducted for private profit or farmed out
"by the Managers to the Teacher; and it must have
"local support either in the form of fees and sub"scriptions or of rates. Grants cannot be made for
"Science or Art Classes in buildings which are not
"public institutions, unless such classes are held in
"the evening, and are open to the public" ("Directory," p. 2).

#### II.

#### Local Committees of Management.

The following are the Government regulations respecting the constitution of Committees, and the steps they must take in establishing an Art School or Class:—

"IX. The Local Committee \* must consist of a "Chairman, Secretary, and at least three other "members. The offices of Chairman and Secretary "cannot be held by the same person. The Depart-"ment corresponds, as a rule, with the Secretary "alone, and he is required to sign all communica-"tions from the School.

"The Committee may be—

- "(1) The Local Authority under the Technical "Instruction Act, or the Committee to "which it has delegated its powers under "that Act; or a School Board, or the "governing body of a School (not being "a public elementary school within the "meaning of the Education Act, 1870), "with a scheme under the Endowed "Schools Acts or the City of London "Parochial Charities Act; or
- "(2) A Committee formed for the special purpose "of superintending and managing the "School or Class under the Department.

"If a Local Authority, School Board, or Board of Governors desire to act as the Local Committee of a School for which they are responsible, they must pass a resolution to that effect. This resolution, with the names and addresses of the members, must be transmitted to the Department and will remain in force until rescinded. All changes in

<sup>\*</sup> Ladies may act upon the Committee. See "Directory," p. 109, or Form 88.

"the constitution of the Local Committee must be "reported as they occur.

"A Local Authority (or the Committee to which "it delegates its authority under the Technical "Instruction Act, 1889) or a School Board may "appoint a Committee consisting wholly or partly "of members of their body, and may delegate the "duties of superintendence and management of "the School to such Committee, provided that "the members of this Committee who are not "members of the Local Authority or of the School "Board are such persons as would be eligible to act "on a Committee under section (a) below.

"In other Schools or Classes, or where the "Local Authority, School Board, or Board of "Governors do not act in their corporate capacity "as the Local Committee for a School or Class, the "Committee to superintend and manage it must "comply with the following conditions:—

Committee to consist of at least five members. "(a) All the members of the Committee must be well-known "responsible persons of independent position, who have "no personal interest in the teachers of the school. "The following are not eligible to be members of "the Committee:—Candidates for examination by the "Department or their Teachers in any subjects; "relatives of Teachers under the Department; "Teachers of Schools which have candidates for "examination; and Teachers of Schools receiving "Government Grants. A member of Committee must "not take any part in an examination at which a "relative of his is a candidate.

Chairman "(b) and at least one other

"(b) As many persons as possible in recognised positions of "public responsibility in the district, such as mayors,

"provosts, town or county councillors, magistrates, member members of school boards, trustees of grammar position schools, clergymen of the Established Church in defined. "parochial employment, and ministers of religion in "charge of legally recognised places of public worship, "should be on the Committee. It is absolutely necessary that at least two such responsible persons should "undertake to act on it. The Chairman, who will be "required to certify that the constitution of the Committee is in accordance with the foregoing require-"ments, must be in a position of public responsibility "as defined above.

"(c) The proposed members of a Local Committee must sign Formation
"Form No. 88. No one can act on a Committee, or of Local
"assist in the conduct of an examination, whose
"membership has not been previously approved by the
"Department.

"(d) When a School or Class is first formed, the Form No. 88 Renewal of "must be signed at a general meeting of the Committee.

"If the same Committee continue to act the next year, "it will only be necessary to fill up Form No. 168 at a "meeting of the Committee. New members who are New mem-"added to an existing Committee during the progress bers. "of a session should sign Form No. 88b.

"(e) A Local Committee may, with the sanction of the One Com"Department, supervise classes meeting in different mittee
"places, but the Department will not recognise more for a
"than one Committee—except in the case of a Local building.
"Authority acting as such—for the supervision of in"struction given in any one building.

"X. In order that a School or Class may be Department's "placed on the list of those eligible for grants the approval "Committee must have been formed, or renewed, mittee."

"by the 31st October preceding the examination.

"When the Committee is approved the School or Class' will be assigned a distinguishing 'School

"Number,' which must be quoted on all forms and

" correspondence.

- "(a) A Committee which is formed under § IX., section 1, "must transmit a certified copy of the resolution by "which it is constituted.
- "(b) A Committee which is formed under § IX., section 2, "must forward Form No. 88 or, on renewal, Form No. "168.

Permanent Committees. "(c) A Committee which has been recognised by the Depart"ment continuously for three years, or a Committee
"formed by resolution, is not required to send in a
"renewal form year by year, but will be considered as
"continuing in office so long as it discharges its duties
"efficiently, or until the Department is informed that
"the members desire to relinquish their duties. The
"Secretary of the Committee should, however, report
"all changes in its constitution, and, in the case of a
"Committee formed under § IX., section 2, he should
"submit on Form No. 888 the signatures of new
"members, duly certified by the Chairman. Any
"alterations required by the Department must be
"completed by the 31st January preceding the ex"amination (see Form No. 170, p. 105).

Committee for conducting an examination only.

- "XI. A Committee may be formed to provide for the examination of candidates on account of whose success neither payments nor prizes are to be claimed. Such a Committee should sign Form No. 88c, which must be sent to the Department before the 1st January preceding the examination for which application is to be made.
  - "This Committee cannot be renewed by sending Form No. 168, but must be reconstituted from year to year."

    ("Directory" pp. 3-5.)

The duties of the Committee are further summarised on Form 88, or p. 110 of the "Directory." They may be epitomised as follows:—

(a) Provide and maintain properly lighted, heated, and equipped class-rooms.

Be responsible for the safe custody on the school premises of all apparatus and examples towards the purchase of which the Department has granted aid, or which it has lent.

- (b) Provide a room or rooms of sufficient size to carry out the annual examination according to the detailed regulations prescribed in the Science and Art Directory.
- (c) Visiting classes, inspecting and signing Registers.
- (d) Sending in names for the May Examinations, and superintending and, unless a Special Local Secretary be appointed, conducting the examinations.
- (e) Transmission of works executed by the students to the Department for examination, and make an annual report of the school's proceedings.
- (f) Certify that the Claims are in accordance with the Department's regulations, and
- (g) That the requisite number of lessons have been given.
- (h) To undertake that the school, with all its apparatus and examples, shall always be open to the Inspector.

Such, then, are the Government demands on the Local Committee, and although they are extensive enough, and, if acted upon in the spirit in which they are framed, sufficient, yet so easily are the duties relegated to, or adopted by, the Master or Secretary, that in very many cases the Committees are mere signatory machines, meet very seldom, and know little or nothing of the working of the schools under their control.

Dormant Committees, such as these, may serve very well to legalise their schools and earn grants, but it is very desirable that Committees should act very differently, and consider that they are entrusted with the artistic welfare of their particular localities. Repeatedly does the "Directory" say that the Department aids and does not merely maintain, and that the Parliamentary vote from which its grants are made may cease.

The Department undoubtedly expects that the Committee should conduct the school in an independent spirit; though it naturally imposes rules and conditions where it grants aid. Further, the Department's rules and regulations were never intended as a constitution for a school, nor as a line of policy for its managers.

In cases where the Committee is dormant, the arrangements are usually entirely in the hands of the Master. This is not necessarily a bad arrangement; but a strong school must have an active Committee. We will briefly indicate the ways in which an active Committee would render much service.

In the first place, the Committee must have a policy to carry out. Perhaps it will be their Master's policy, but it is essential that each member of the Committee should know precisely the lines upon which the school is being conducted, and the aims which are being pursued. They should have determined what they can do for the various classes of students who come to the school,—for the lithographer, the silversmith, the cabinet-maker, and the ordinary art student, both of the morning and evening classes, as well as for those who want to make art their profession. Competent as a Master

may be, his efforts to assist students will only have half their force, unless the Committee recognise his needs and intelligently second his proposals.

The members of the Committee in visiting the school can see whether the rooms are properly cleaned and straightened, whether cupboards or drawers are necessary, and whether the lighting is satisfactory. They must see that the classes commence punctually, and are conducted in an orderly manner. They must satisfy themselves that the apparatus and appliances are adequate, and must endeavour to forestall the Master's demands.

Not only must the particulars respecting the Committee be submitted to the Department, but "detailed information in respect of Schools of Art "must be sent to the Department in Form No. 527, "upon the formation of Schools of Art, and as the "Department may require" ("Directory," p. 65).

#### III.

#### Government Aid.

"Aid is only granted to Schools and Classes "which have been approved by the Department, "and are open at all times to the visit and inspection of its officers.

"Grants may be withheld wholly or in part for "any breach of the rules, or if the instruction or "supervision is inefficient. The Department is the "sole judge as respects all grants and awards, and "its decision is final and conclusive.

"The vote for Science and Art instruction is "liable to be decreased and eventually discontinued. "Its grants, which are intended to supplement and "not to supersede local effort, must, therefore, not "be looked upon as perpetual, or as in any way "establishing a claim to any payments beyond those "offered from time to time.

"This aid is granted in the form of—

"Payments\* to the Committees of Schools and "Classes on the instruction as tested by "examination, by students' attendance and "by inspection, and certificates, prizes, "medals, free Studentships, Scholarships, "and Exhibitions to the Students.

"Building Grants: and, in Ireland, Grants "towards the purchase of apparatus, ex"amples, fittings, &c.

"Loans and Grants to Local Museums and to "Science and Art Schools."

("Directory," p. 2.)

#### The grants are in detail as follows:—

"Payments to the Local Committees of Schools and Classes "on the results of instruction, as tested by Examination, "of Students of the Industrial Classes.

<sup>\*</sup> This and other paragraphs of a general character quoted from the "Directory" apply both to Science and Art Schools and Classes. There are no grants in Art given merely upon inspection or attendance as in Science.

- "(a) (Art) £1 and 10s. for a 1st and 2nd class respectively
  "in the Elementary Stage; and £3, £2, and £1 for
  "excellent 1st and 2nd class respectively in the
  "Advanced Stage, and for subjects in which there is
  "no Elementary or Advanced Stage; and £6 and £3
  "for 1st and 2nd class respectively in Honours.
- "(a) (Science) £2 for a pass in the Elementary Stage of "each subject except mathematics [Art Schools just "now take Section I., Science Subject I., i.e. Plane and "Solid Geometry]; 10s. for a pass in Geometrical "Drawing (Art)."

The payment of grants on the results of personal examination are subject to certain restrictions beyond the general restriction respecting the social position of the student mentioned on page 26. The special restrictions are concerned with previous successes of the students claimed upon, and also place a limit to the number of successes in the same year of any student for which payment will be made.

No payment will be made if the student has been previously successful in a higher stage of the same subject. If a student has previously passed in the same stage, the claim for any present success will be reduced by the amount claimable on the former success whether the former claim was paid or not, "but if the previous success was obtained in a "school or class under the same committee, and has "not been paid upon, the Department may allow the "full claim."

When students sit at the same annual examination in both stages of Freehand, Model, Light and

Shade, or in all the three stages of Modelled Design, payment will only be made on the higher success obtained. The examinations here mentioned are the only ones that have their different stages taken on different evenings.

Then the number of successes obtained by a student in one year upon which payment will be made is limited as follows:—

- "Besides payment for successes in the Elementary Stage,
  "payment may also be made on account of the student
  "in any one year, for not more than three other suc"cesses, whether in Advanced Stage, Honours, or in
  "subjects having no stages.
- "(b) £3 or less per student for works executed in Local "Classes.
- "(c) £3 for a student obtaining a Free Studentship or Local "Scholarship.
- "(d) £15 each for not more than two Art Pupil Teachers.
  "One Pupil Teacher allowed if 20 students of Industrial
  "Class, and a second if 50 such students, are satis"factorily taught. Branch classes of School of Art
  "may only claim one sum.
- "(e) £5 for each student who obtains a National Scholarship "or a Royal Exhibition, or who obtains admission to "Training Class."

#### ("Directory," pp. viii. 76 and 77.)

"A grant in aid of a new building, or for the "adaptation of an existing building, for a School of "Science or for a School of Art, may be made at the "following rate:—

<sup>&</sup>quot;(a) Not exceeding 2s. 6d. per square foot of internal area up "to a maximum of £500 for buildings.

<sup>&</sup>quot;(b) Grants towards the purchase of apparatus, examples,

"and fittings are suspended, except in Ireland, while "the Local Taxation (Customs and Excise) Act, 1890, "continues in force."

("Directory," pp. viii. and 6.)

The sum allocated to the payment of Building Grants will not exceed £10,000 in any year; applications will therefore be considered in their order of receipt in a complete form, with plans, etc. ("Directory," p. 6). Application for a Building Grant must be made on or before November 1st preceding the Parliamentary year in which the grant will be made. For further particulars see "Directory," p. 116.

#### IV.

#### Masters and Teachers.

"In order to claim payments on results and "prizes, the Teacher of a School or Class must "be qualified in accordance with the rules laid "down" ("Directory," p. 6).

#### "QUALIFICATION OF ART TEACHERS.

- "A School of Art must be under the instruction "of a teacher holding an Art Master's Certificate, "Group I.
  - "(a) In cases of the master's illness, the Department may "provide a substitute on condition that the Committee "pay him 20s. a week during the time his services "are required. No substitute so provided can remain "longer than three months.

"(b) Ex-National Scholars may be recognised as Teachers of "Modelling, or of any special branch of Art which they "are qualified to teach, in Schools of Art or Art Classes; "but they cannot be recognised as Head Masters of such "Schools or Classes unless they hold, respectively, the "Art Master's Certificate, Group I., or the Art Class "Teacher's Certificate.

"An Art Class must be under the instruction" of a teacher holding the Art Class Teacher's "Certificate or an Art Master's Certificate.

"(a) Classes under the instruction of teachers holding either
"the Elementary School Teacher's Certificate D., the
"2nd grade Drawing Certificate, or the new Elementary
"Drawing Certificate (First Class), may be registered for
"payments on the results of the May examinations in
"the Elementary Stages of Subjects 2b, 3a, and 5b, and
"Science Subject I. and Geometrical Drawing (Art):
"as well as for payments on results of the May Art
"examinations in the Elementary Stages of any other
"Art Subjects in which the Teachers have obtained a
"First Class in the Elementary Stage.

"(b) Classes under the instruction of Teachers holding either "the Elementary School Teacher's Certificate D., or the "2nd grade Drawing Certificate, or of Teachers qualified "to earn payments on results in Science Subject I. may "be registered for payments on the results of the May "examination in the Elementary Stage (only) of Per"spective—Subject 1c.

#### "CERTIFICATES.

"There are three forms of Certificate for Art "Teachers—

- "(i.) The Elementary Drawing Certificate (First "Class and Second Class);
  - "(ii.) The Art Class Teacher's Certificate; and "(iii.) The Art Master's Certificate.

"These several Certificates can be claimed when the examina"tions detailed in the succeeding paragraphs have been
"passed. In applying for his Certificate the Applicant
"must state when and where he passed the examina"tions.

"Applicants for Certificates may be required to be re-examined "in any subject in which they have passed more than "three years previously."

"A teacher holding the Art Master's Certificate, Group IV.
"only, is not qualified for the Head Mastership of a
"School of Art.

"Specially qualified persons may be exceptionally "recognised." ("Directory," p. 66.)

The qualification required for earning grant on the result of teaching in Science Subjects (of which the Elementary Stage of Subject I., Geometry, is generally taken in Art Schools) is a previous pass by the teacher in the subject. Holders of the Elementary Drawing Certificate (1st class, the School Teacher's D. Certificate, or the old Second Grade Certificate may claim payments in the Elementary Stage of this Subject ("Directory," p. 24), and holders of the Art Master's Certificate, Group I., if dated before 1893, may teach Science Subject I.

("Directory," p. 26.)

There are seven Art Master's Certificates (Groups I. to VII.), but Group I. fulfils all requirements.

The staff may include uncertificated persons. They must not, of course, be declared as in *sole* charge of classes, for the Department will not recognise them. The head-master, or one of the

other certificated masters, must be returned as teaching the class either alone or conjointly with the uncertificated teacher. It will, however, be best to return the name of the uncertificated persons as well, as it shows the extent of the staff.

Committees must recognise the fact known perfectly well to Art Masters, that certificates are but poor criterions of ability, and have been earned at the expense of most valuable time, leaving the candidate more or less incapable of any real work. Very often indeed these teaching certificates are taken by persons of very limited ability, without any study of art teaching itself.

It is by the managers of some of the largest schools not considered wise to place heavy duties upon junior teachers. Their own study in the school, while it improves them and renders them more valuable as teachers, is objectively of great assistance to a school. It would be best to pay an assistant a fair wage, give him not too much teaching, and expect him to spend the remainder—of, say, four days a week—in study at the school.

Pupil Teachers.—The Department makes a grant (£15 each for two pupil-teachers, if appointed) to Schools of Art to assist in the payment of salaries to these members of the staff. Often the £15 is the whole stipend. A person is not deemed a pupil-teacher after the age of twenty-five, nor if he or she takes numerous or important classes. The appointment should be made for definitely one year only,

though the same person may be appointed in the following year. By this means some hold is retained over the pupil-teacher, and he, being liable to lose his position, is perhaps a little more careful of his actions. It should be made a rule that he spends the whole of his available time in study in the school. See also "Directory," p. 77.

#### V.

#### Hours and Duration of Classes.

In order to claim grant the following regulations respecting the number and duration of class lessons must be observed:—

"In Schools of Art both Day and Night "Classes must be held, and there must be a Night "Class for Artisans meeting under the instruction "of the master for two hours at least three times a "week during forty weeks in the year" ("Directory," p. 65).

"The class in each subject of Science, or group of subjects of Art, must meet under the instruction of a qualified teacher on at least 28 days during the session, each meeting being of at least one hour's duration on a separate day: and the instruction of all students upon whose examination a payment is to be claimed must commence within reasonable time after the 1st October preceding the examination

"on which payments on results are claimed and "continue until the examination.

"Should the instruction not commence and continue as above stated, or should less than 28 lessons have been given during the session, the claim for payment on results will only be considered under very exceptional circumstances, and payments, if made at all, will be proportionately reduced.

"Every School or Class must, on its formation "and annually before the 1st October, make a return "on Form No. 120 of its Teaching Staff, with the "Time Table of instruction for the current session; "of its sources of maintenance; and, in the case of "an old School or Class, of the statistics for the past "session.

"(a) If Form No. 120 be not received before 1st October, the
"Department may refuse to make payments on the results
"of the next examination. The acceptance of Form No.
"120 after that date will be exceptional, and subject to
"a deduction from the grant.

"(b) The arrangements for the session returned on Form No.
"120 are not necessarily final, but they must be adhered
"to until a letter intimating intended alterations has
"been sent to the Department and its receipt has been
"acknowledged.

"(c) Those lessons only which are given on the days and between hours previously reported to the Department, and which are given by teachers of whose appointment it has approved, and in the buildings which it has recognised for the meetings of the class, can be registered towards the number necessary for prizes or for payments on results."

("Directory," pp. 6 and 7.)

A student upon whose passes grant is claimed must have received at least 20 lessons in the group

of subjects of art in which the special subject claimed upon is included, or in the subject of Science. And it is also required "that all such attendances "have been made since the last examination in the "subject of Science, or group of Art subjects, at "which the candidate was successful; within the "two years immediately preceding the examination "on account of which the claim is made; and in "classes under the supervision of the same com-"mittee." In the subject of Elementary Modelling the 20 lessons received and 28 lessons given may extend over the 12 months preceding the examination.

#### VI.

Regulations respecting Fees and Income.

"That portion of the income of a School which "is derived from instruction in Science or in Art "must be applied wholly for the purposes of such "instruction, and the Local Committee must provide "and maintain suitable rooms for the instruction "and for the examinations, with firing, lighting, "apparatus, examples, &c. If at any time it appears "that these are unsatisfactory or insufficient, the "assistance of the Department may be reduced or "withdrawn" ("Directory," p. 5).

<sup>&</sup>quot;Gratuitous instruction is only permitted where the school or class is supported by a local rate; or where considerable

"local contributions have been made to secure free "instruction; or where classes have been but recently "established, and it can be shown to the satisfaction "of the Department that the circumstances of the "locality justify such a course. No school or class "will be permitted to charge abnormally low fees in "order to compete with the others in the same locality." The Committees of Schools or Classes in a district "should, therefore, consider the subject together, and "fix some minimum fee for the district.

"Students in a Training College; teachers, and pupil teachers, "and holders of scholarships, exhibitions, and student"ships, may \* be exempted from the payment of fees."

("Directory," p. 3.)

#### VII.

Communication with, and sending Reports to, the Department.

Most of the communications with the Department are made upon *Forms*, which are supplied "on "application, personally or by letter, addressed to "The Secretary,

"Science and Art Department, "London, S.W.

"The Department does not undertake to send "them to Art Schools or classes in the absence of a "special application in each case. The transmission

\* The "may" in this sentence is really "must" as regards pupil teachers and holders of Free Studentships and Local Scholarships granted by the Department (see "Directory," pp. 77, 79, 80).

"of forms does not imply the recognition of the "School or Class by the Department."

("Directory," p. 3.)

The Department requests that all communications should be made upon paper of foolscap size.

There is a fine for delay in sending in Forms after the specified dates ("Directory," p. 108).

#### VIII.

#### Regulations as to Students.

The regulations of the Department affect—

I. The registration of students,

II. The number of attendances,

III. The social position of students, and arise out of the broad principle—that the Department's assistance is on behalf of industrial students.

Two Registers are to be kept; first, a General Register, in which the entries run as follows:—

After which follows the student's signature. The first number is the Register Number, and is repeated against the particular student's name in all the forms sent to the Department. The Register Numbers are, of course, consecutive in the General

Register, and the first student on the books is No. 1.

The other necessary register is the Attendance Register.\* The entries in it run as follows:—

The identity of Robinson is established by his register number; after his name follows the fee he pays, and then come his attendances—5 in group A, 2 in group C, and 2 absences.

This is all the Department requires in the way of registration. The instructions in the "Directory," p. 7, are as follows:—

"A general register must be kept in accordance "with the instructions in Form No. 1069 (see p. 104) "for each Science or Art School or Class, and an "attendance register for each subject taught. The "Committee are responsible for the accuracy of the "registration, and no grants will be made or prizes "allowed unless the registers are properly kept and "certified. A member of the Committee visiting the "school should record, in the space provided in the "Attendance Register, the number of students who

<sup>\*</sup> The Department now require a separate register to be kept for the new subject—Geometrical Drawing; while, further, as the geometry upon the Art Certificates is not the Art Geometry, but the Science Geometry, or Section I. Science Subject I., a separate register must be kept wherein to record attendances available for this subject. That is, if Geometry is taken as both a Science and Art subject, two registers must be kept, making three attendance registers in all.

"are present at the time of his visit, and should "certify the entry with his signature and the date."

In many schools these two (or more) compulsory registers are the only ones kept. They are not intended by the Department to serve as working documents, but merely as "forms" upon which certain information required is to be returned. We shall presently suggest what books are necessary, but will first remark that the Attendance Register may be rendered more serviceable by arranging it as follows. Several copies of the register may be pasted together so that they form one book of several leaves, then the names may be entered alphabetically, all the names beginning with A together, and so on. A space of several lines must be left between each batch of names for additions. Only by so arranging the Attendance Register can it be made to serve the purpose of a school record of attendance, and even this it does not do completely. It is, according to the Government regulations, impossible in the Attendance Register to indicate the amount of time a student has worked. A student may attend all day, working seven or eight hours, and probably at three if not more subjects, but he may only have two letters against his name, say A and C representing elementary drawing and designing, and these may be placed against the name of a student who has worked only one hour at each.

If, as is allowed, certain claims may be made

upon attendances dating further back than the attendance register in actual use (see p. 19), a record must be kept of these old attendances, though they must have been recorded on the previous attendance register which will have been sent up with the previous general claim of the school, and not returned.

There can be no doubt, however, that even if the Attendance Register serves for the school records of attendance as well as for Government regulations, it and the General Register are hardly sufficient for general secretarial purposes. In the General there is little or no room for recording successes, and, as a name is only entered once, the addresses become antiquated.

We should suggest some such secretarial arrangements as the following.

When the student enters the school he may fill up a form upon which he states his name in full, his full address, his age, his successes in examinations, and the class he proposes to join. Upon this form the master may indicate in space prepared the subjects which the student will study during the session. The Register number may also be added, and the student may be requested to bear in mind what that number is.

These forms provide reliable information from which other documents may be prepared. They must be kept in strict alphabetical order.

If more space were provided in the General

Register for the record of students' successes a further register would not be necessary; and as it is, an *Index*, similar to those supplied with ledgers, is indispensable. In this index the students' names will have the register number against them, and will thus to some extent counteract the non-alphabetical arrangement of the General Register.

As the General Register seems inadequate, another General should be provided; and perhaps it would be well to have a new one every year. Further, if the names were kept roughly alphabetical there would be no need of an index, and this new register may itself be an index to the proper General Register. It should contain spaces for the student's Register No., surname, Christian names, age, years in school, and spaces for all the Government examinations, and a space for additional successes. When the entry is made the past successes are added to it, and at the close of the year the successes of the year, say in red ink; and then next session all the information is carried on, with the age and years in school advanced. The registers issued by Messrs. Chapman and Hall, for some time past, at 1s. 6d. each, correspond pretty nearly to these requirements.

Number of Attendances.—The Department require that a student shall have received at least 20 attendances and that the master has given at least 28 lessons, in each group of subjects of art; or grant cannot be claimed. So that if a student

passes in Freehand, Elementary Design, and Modelling, he must have 20 A's, 20 C's, and 20 F's against his name; and he must make, therefore, 30 double attendances, marked  $\frac{A}{F}$ ,  $\frac{A}{C}$ , or  $\frac{C}{F}$ , at least;

but a student upon whose passing in Freehand, Model, and Elementary Shading grant is claimed need only have made 20 single attendances of one hour each against the other student's 60 attendances of 1 hour.

Social Position of Students.—Claims may not be made either for works sent up, or examinations passed, by students of the middle class. A person who cannot claim an abatement of income-tax, or whose parents cannot, is judged to be a middle-class person. But the position of students attending a night class for artisans meeting after 6 p.m., or on Saturdays after 2 p.m., is not inquired into unless the Department have reason to believe that the class is not bonâ fide for artisans, and largely attended by them. For these and further details, see "Directory," pp. 13, 14.

#### IX.

#### Examinations.

The Science and Art Department's Examinations commence about the 28th of April, and cover about a month. The regulations governing the conduct of them are given in the "Directory," pp. 7-13;

and as it is unlikely that any Committee will embark upon examination work without consulting the official guide, we shall here only recall the chief facts connected with the matter.

Initial Steps—December.—A Committee formed merely to provide an examination of candidates upon whose successes neither grants nor prizes will be claimed, must apply for Form No. 88c, and send it in, signed, by January 1st.

A Committee that desires to have its students examined must communicate with other cognate committees and form with them an Examination Committee, and appoint an Examination Secretary, who must be a member of one of the Local Committees.

When an examination is held by this Amalgamated Committee, each committee concerned must send to the Examination Secretary, before March 16th, a list of the names of the candidates from their school, with the subjects the candidates propose taking, against the names.

The Examination Secretary sends the Application Form 119 on to the Department not later than March 21st.

The examinations thus established are conducted by the Local Committees, the members of which act as *Superintendents*, a certain number of whom must always be present, though they may relieve one another provided the requisite number are always present. Special Local Secretary.—For the management of examinations in populous districts or large and important schools, the Department may authorise or require the appointment of a Special Local Secretary, who will do the work both of the Amalgamated Examination Committee, and of the Examination Secretary whom that body appoints, and he will conduct all the correspondence with the Department.

"The nomination of a Special Local Secretary "rests with the Special Committee of the Local "Committees, and the nomination of his Assistants with the Special Local Secretary" ("Directory," p. 10).

Either the Department itself proposes the appointment of the Special Local Secretary, or the Local Committees apply before February 10th for one to be appointed. Then the Department either appoints the Special Local Secretary or asks the Local Committees to form from themselves a Special Committee, and send up their nomination of a person for the position before February 24th. For further details, see "Directory," p. 10.

The appointment of a Special Local Secretary relieves the Local Committees of the business of conducting examinations, but they are advised in the "Directory" to attend occasionally.

<sup>&</sup>quot;No persons who have relatives to be examined within their "district or who are ineligible to act as members "of a Local Committee (see § IX., sec. α) can act as

"Special Local Secretaries or as Assistants" ("Directory," p. 10).

Expenses of Special Local Secretary.—The fees allowed to the Special Local Secretary, and the scale upon which his assistants are remunerated, are given in the "Directory," p. 9.

The cost of the examinations is defrayed partly by the Department and partly by the locality. The Special Local Secretary is empowered to require each school to contribute its share to the general expenses prior to the time of the examinations, and to exclude the students of any school from which payment has not been received.

When the Special Committee present a certificate, on Form 983, that the local moiety towards expenses have been lodged with them, the Department will remit the other moiety.

"Custody of Examination Papers.—With a view to avoid any possibility of the examination papers being tampered with, some person must be appointed for each district, who will make himself responsible for the custody and distribution of the packets of papers after their receipt by the post, and who, from the position of his residence and the nature of his other avocations, is enabled to do so. He may or may not be a member of a committee, or the Special Local Secretary, but no person who would be ineligible to act as a member of a committee can act as a custodian of examination questions.

"The packets of examination questions must not under any "circumstances be permitted to pass into the hands of a "teacher, of a candidate for examination, or of any other "person interested in the success of the examination.

"Local circumstances will dictate whether it be advisable to "have one, or more than one, custodian for each district "or section of a district.

"A special meeting of all the committees, or of delegates from all the committees, in the district "must be held to nominate the custodian. This "meeting will be convened in the same manner as "that laid down for the meeting for the appointment "of a Special Local Secretary.

"This nomination, with the address of the gentle"man nominated, must be submitted to the Depart"ment before the 24th February. If the nomination
"is approved the packets of examination papers
"will, in due course, be sent to him; he will be
"responsible for their safe custody and distribution
"to the superintendents of the examinations at
"the various centres."

("Directory," p. 12.)

There are no regulations about the provision of the objects required for the examinations, or the seating accommodation, or drawing-boards. These expenses would fall upon the Amalgamated Examination Committee, or upon the Special Committee, whichever may happen to be appointed, and they would claim part from the schools sending candidates and part from the Department. As a rule, however, these things are lent or provided by the schools without any formality.

#### CHAPTER II.

REQUIREMENTS OF A MODERATE-SIZED ART SCHOOL.

The following list contains the furniture, casts, and examples necessary for the equipment of a moderate-sized School of Art. At the left hand are the pages upon which the details and particulars of the different items are given. The list is limited to those things which must be regarded as necessary. Some items might be reduced, and others produced on a cheaper scale. Where such reductions can be made they are either mentioned in detail further on, or will occur to any one inquiring into the matter.

# ELEMENTARY ROOM.

SEE							
PAGE					£	$s_{\cdot}$	d.
44.	50 students' desks and seats, at 21s.				52	10	0
63.	3 blackboards, 6	$\times$ 4 f	eet, fitte	ed to			
	slide			• • •	3	15	0
65.	Freehand copies			•••	1	8	6
65.	Jacobsthal's		• • •		3	13	6
63.	3 frames, at 7s.		•••	• • •	1	1	0
66.	Large copies				2	3	6

# 32 Guide to establishment and equipment of

SEE						
PAGE	77 1 1 1			£	8.	d.
67.		• • •	• • •	1	0	0
68.	0 1	• • •	• • •	0	15	0
63.	3 small frames, at 2s. 6d.	• • •	• • •	0	7	6
69.		• • •	• • •	5	12	0
69.		• • •		3	8	3
50.		• • •		1	0	0
49.	Table		from	0	15	0
50.	Rack to bear models			1	0	0
50.	Rack for boards			5	0	0
72.	Horizontal blackboard rul	le		0	15	0
103.	Rule, set of squares, etc.			0	12	6
	25 water-jars			0	2	1
57.	Master's desk, with a	drav	ver			
	$38 \times 24$ for large co	pies, a	nd			
	drawers for drawin	_				
	small copies	• • •		4	0	0
52.	Hangers for casts, etc.	(thon	gs)			
		• • •		4	16	0
	Intermediate	Ром				
	INTERMEDIATE	HOOM.				
44.	20 desks, etc			21	0	0
70.	Models			4	0	0
69.	Additional models			2	10	6
71.	Additional models			2	0	()
49.	Table			2	0	0
<b>4</b> 9.	Low table with woode		ck-			
	ground			0	18	0

SEE				
PAGE		£	8.	d.
75.	Casts for Elementary Shading	3	16	0
· 76.	,, ,, ,, ,,		5	0
78.	Casts for Advanced Freehand	3	12	6
76.	Casts for Advanced Shading	5	13	0
52.	Hangers for 24 feet wall	4	16	0
57.	Master's desk	4	0	0
	Painting Room.			
44.	20 desks and seats	21	0	0
54.	3 painting stands, at £5	15	0	0
	Cupboards in which to keep objects	2	10	0
94.	Objects, etc	5	0	0
	Antique Room.			
82.	Venus of Mile; Dancing Faun;			
	Germanicus; Discobolus	21	12	0
82.	Farnese Hermes	10	10	0
82.	Anatomical	6	6	0
84.	Statuettes and reliefs	14	0	0
84.	Busts and masks	7	1	6
55.	6 stands for statues	12	0	0
55.	4 pedestals	2	0	0
55.	Shelving say	1	0	0
94.	Articulated skeleton, and part of			
	same say	15	0	0
	Table, strong, 2 feet wide	1.	10	0
55.	Stand	4	0	0
52.	Hangers for masks, reliefs, etc	3	0	0
45.	10 easels, at 5s	2	10	0
45.	10 tall stools, at 6s. 6d	3	5	0
	,			Ŭ

# LIFE ROOM.

CITALI									
SEE PAGE		£	8.	d.					
56.	Thrones	6	0	0					
46.	10 donkeys, 12s	6	0	0					
46.	10 easels, at 5s	2	10	0					
46.	10 tall stools, at 6s. 6d	3	5	0					
58.	Dressing-room	2	0	0					
56.	Curtain behind model	2	10	0					
57.	Master's desk	4	0	0					
	T. T.								
Design Room.									
45.	8 tables, 8 feet; at £1	8	0	0					
43.	10 chairs	1	10	0					
46.	10 stools, taller than 18 ins.; at 5s.	2	10	0					
62.	3 Blackboards and fixing	3	15	0					
72 aı	nd 103. T-square and rulers	1	7	6					
	20 water-jars	0	1	8					
92.	Photographs for monochrome painting	1	10	0					
89.	Photographs of sculpture (Troca-								
	dero Museum)	5	2	0					
90.	Griggs's photo-chromolithos	3	()	0					
90.	Sutton's Studies from Museums	4	0	0					
	Fairholt's and Mollett's dictionaries	0	17	6					
91.	Design books say	5	0	0					
93.	Books on Principles of Ornament	4	0	0					
94.	Books on Anatomy say	1	5	0					
92.	Books on Architecture	5	0	0					
93.	Books on Perspective, etc	1	3	0					
57.	Master's desk	4	0	0					
Also books on Plant Form casts of ivories, etc									

Also books on Plant Form, casts of ivories, etc., cupboard, Bunsen burner, etc.

9 0

 $3 \ 10 \ 0$ 

0

#### Modelling Room.

SEE

62.

71.07					£	8.	d.
PAGE	α .						
<b>7</b> 9.	Casts	• • •	• • •	say	6	6	0
47.	4 large modellin	ıg stan	ds	• • •	16	0	0
57.	Bin, trough, etc				9	0	0
47.	6 turn-tables, at	12s.			3	12	0
	Shelving	• • •		from	1	10	0
	Master's	Room	AND O	FFICE.			
59.	Material store	• • •		• • •	4	0	0
60.	Ladder			• • •	0	10	0
60.	Writing-desk				5	0	0
00.	Willing-dosk	• • • •	• • •		0	U	U

The following should be added if possible: copper-plate press, carpenter's bench and tools, silversmith's blast and tools.

62. Drawers for drawings ...

Pigeon-holes ... ...

Even a small provision in this way will be very welcome; for in the near future technical work will undoubtedly be greatly developed.

#### CHAPTER III.

#### A SCHOOL OF ART-THE BUILDING.

The Building.—The following are the dimensions suggested by the Department for a School of Art.

"For a School of Art the following dimensions are con-"sidered to afford adequate provision for 50 students. Pro-"portionately increased accommodation must be provided for "greater numbers.

"(a) One Elementary room 20 × 30 feet. This room should "not be less than 16 feet high, and may be lighted by "skylights as well as by side windows.

"(b) One room for study from Life or Life-size easts, not less "than 20 × 24 feet. This room should be lighted "from the north side by a single large window, the top "of which (carried up in a dormer if necessary) should "be at a height above the floor equal to \(\frac{3}{4}\) the depth "of the room, or if the pitch of the roof be steeper "than 60°, a skylight should be made in continuation of "the window, so as to gain the same effect in lighting.

"(c) One modelling room  $20 \times 15$  feet.

"(d) One master's room  $12 \times 15$  feet. This room should "be lighted by a side light from the north, if possible.

"(e) One cloak-room for females  $12 \times 8$  feet 6 inches.

"(f) A kitchen and bedroom for the attendant, each  $12 \times 10$  "feet" ("Directory," p. 114).

While the following general regulations among others must be adhered to:---

"(a) The rooms for study should be not less than 15 feet high to the wall plate, if ceiled flat, or 12 feet high to the

- "wall plate if ceiled to the collar-beams or the common rafter.
- "(b) The windows should be large, and in Art Schools, free "from mullions or small panes" ("Directory," p. 114).

The above would accommodate the number of students given. The dimensions, which do not include passage, men's lavatory, etc., square out to 1900 square feet. The Department's maximum grant of £500 (which must not itself be more than half the cost) represents 4000 square feet internal, being calculated at the rate of 2s. 6d. per square foot internal.

The above scheme is undoubtedly small and inelastic, since for greater numbers the proportions are to be increased without any modification of plan; and it is very doubtful whether any schools are erected according to the particulars given.

The art-teaching of to-day requires planning of a more special character.

Some classes must be isolated in special rooms, others may occupy portions of long rooms.

Those requiring isolation are Lecture, Life, Modelling, and Technical.

Those which need not be isolated, Antique, Painting, Design, Elementary.

The isolation is necessary, on account of sound, in the case of lectures and technicalities, for warmth and exclusiveness in the life, and on account of the dirt in the modelling.

Then another consideration is that of lighting. The suggestions of the Department, given above, speak of a north light for the life-rooms and master's room only. This is misleading. It is distinctly inconvenient for any of the windows to admit direct sunlight; and it is therefore best for the building to face the north or the east. If the eastern flank of the building face east-north-east or between that and east, it will probably be found that the sun will not enter the windows of that side after 10 a.m., the hour at which most classes commence. All the windows on a side at right angles to this, facing, say, north-north-west, will be free from direct sunlight till 5 p.m.

Artificial light being used at night there is less need to consider the relation of the windows to the points of the compass, but it is important nevertheless that the matter should not be neglected. In the light summer evenings the daylight serves, and the opportunity is generally taken for doing colour work. The painting-room and the life-room should therefore be so placed as to avoid sunlight in the summer evenings. East-north-east will be the best aspect for windows.

If it is found impossible to avoid the use of windows admitting sunlight they should be arranged to serve the classes in Design, Architecture, Freehand and Model, but more preferably to light the offices, library, staircases, etc.

Form of Windows.—The windows should be vertical and placed high. If the room be 20 feet wide and 15 feet high, the window, or windows,

may commence 5 feet above the floor, and extend up to the ceiling. If the room be wider the window will commence higher, say 6 or 7 feet above the floor. The space beneath the window is very valuable for hanging casts or frames of examples upon.

In order to gain a sufficient height of window, the top of it being at a height three-fourths the width of the room, a dormer may have to be added, or, if the roof is 60° or more in pitch, the window may be continued up the roof as far as is necessary. Great attention must, however, be given to the pitch or slant of skylights. To effectually exclude sunshine the pitch of skylights requires to be greater than architects care to give. The intrusion of even a little sunshine is very troublesome, since it strikes upon the wall or woodwork and makes objectionable reflections. If the skylights are found to be too flat it may be well to add a projecting ledge or board on two or more of their sides on the roof. This is equal to increasing the pitch of the skylight.

Rooms devoid of windows low enough to be seen through are dismal and unpleasant, and even if a room were lighted by a long high window or a series of high windows, a small casement might be provided at either end in the window wall. Such windows are useful for ventilation. They can be easily opened and closed, and may possibly render openings in the large windows or skylights unnecessary.

Long rooms may need to be divided by hanging curtains, or by movable screens, about 5 feet high, and 8 feet long each, or by the two in combination.

Tye-rods are not always objectionable; they should not be near together, nor should they be so placed that they cast shadows, but they are not likely to do this unless the window is very small, and of course above them. Windows above tye-rods do not necessarily cause shadows to be cast from them. The rods are themselves useful for suspending curtains.

The hot-water or steam pipes should not run along the skirting, unless this arrangement cannot be avoided, as boards are almost sure to be placed against them. Boards subjected to heat in this way soon split.

Although the class-rooms should communicate directly with one another, as well as by passages, the doors by which the communication is effected should not be in the middle of the sides of the rooms, but toward the corners, and in such positions as will tend to throw any gangway formed by usage against the walls (unless walls receiving light from the left of a person looking toward them), so that there may be as little interference with the persons working in the room as possible.

It is important that the modelling be carried on in a separate room, and that a portion of it at least be floored with cement or lead.

It is further of the very greatest importance that no room should be approached only through another room. The Life room may be accessible only from one of the other rooms, as from the Antique room, but the Life room itself should give access to no room.

## CHAPTER IV.

#### FURNITURE.

In this section we shall take a review of the objects of furniture generally found in a well-appointed art school. They may be classed as—Furniture for Students' use; Furniture for supporting Examples, etc.; Fixtures and Accessories.

# FURNITURE \* FOR STUDENTS' USE.

Different subjects of study require slightly different kinds of furniture. We shall indicate the subjects for which each will be useful as we proceed.

Single Desk and Seat.—Taking everything into consideration, the most serviceable arrangement is the single desk or small table and seat. The chief advantage is that a student can be turned in any

\* Wherever in the following pages the class of wood is not stipulated it is considered to be yellow-pine. Many of the objects are considered as being of pitch-pine. This is, however, a not very desirable wood, and The Bennet Furnishing Company inform me that *orham*, a preferable wood, would be no dearer.

N.B.—For particulars of furniture under this section, see advertisement, page 1.

direction independently of his neighbours. In almost all subjects this is a great convenience; indeed a long straight table is only suitable for Freehand, Geometry, Perspective, Architecture, and Design; and for the last four it is better than separate tables, necessarily small, as more space is provided for instruments and books.

Small separate desks will be suitable for Freehand, Model, Shading Models, Shading Cast, Still Life, and may be further utilised as we shall indicate.

The space occupied on the ground by a student working at one of these separate desks is, including gangway behind the student for the master or students to pass along, 4 feet 9 inches  $\times$  2 feet wide, or  $9\frac{1}{2}$  square feet. Even with the simplest class of desk and seat this area can hardly be diminished.

The simplest and cheapest form will be-

Tall Stool, top about  $23 \times 7$  inches, legs spreading as they descend, but not beyond the 23 inches one way, or 16 inches the other.

Cost, in cheapest form, morticed, 6s. 6d. each.

Stool or Chair.—Chairs can be had at no greater cost than the plain four-legged stool or the box-seat. Strong serviceable chairs are quoted at 2s. 9d. each.

Our lowest estimate for seating accommodation will then be about 10s. per student.

The tall stool or narrow table we have just

considered is not, however, the most serviceable form of student's table. Its smallness is lost by the necessary spreading of its legs; however, the legs of one, unless staved, can be set within those of others, these tables can be crowded together in a manner impossible with the next type we shall consider.

Student's Desk.—A somewhat heavy desk with a sloping top of considerable area, say 24 × 18 inches, is in use in some of our schools. It may have a projecting ledge to support pens, brushes, or the water-jar; a shelf beneath; a foot-rest; and a light rack, not unlike a hurdle, to fit into two square holes in the desk top, and for the support of casts, copies, etc. These desks afford ample space for most studies.

Cost, say 15s. each; racks, 1s. each extra.

One objection patent to every one using these desk-tables is the uncompromising slope of the slanting top. Sometimes the permanent slope is suitable to one's work, but very frequently it is either too inclined or not inclined enough, and one has recourse to a drawing-board to supply the required angle. This deficiency may be obviated by the employment of a desk top, hinged so as to allow of its being placed at any desired angle, or, what also is useful, being lowered to the horizontal.

Desk with Variable Top.—Such a piece of furniture should be of great service in an art school. The author has drawn a design for a desk answering these requirements; particulars will be found in the list appended to the "Guide."

# Cost, 18s. each.

Chairs.—We have before said that chairs are quoted at 2s. 9d. The prices range up to 5s. 6d. or 6s. for a High Wycombe chair. The seat must not slope backward very much, as this induces the student to sit at ease rather than up to his work. Quotations for simple four-legged stools will be found to be at least 4s.

Desk and Seats.—We have seen that the lowest estimate (tall stool and chair) is about 10s. per student; for a heavier desk, as above described, with a serviceable chair, £1 or £1 1s. per student should be allowed.

Forms.—These, of whatever variety, are unsuited to the work of an art school.

Long Tables, say 6 feet or 8 feet × 1 foot 9 inches wide and 2 feet 5 inches high, are best for Advanced Design, Architecture, and for any subject which necessitates a number of instruments, books, or papers.

### Cost from £1.

Chairs or stools should be used with these tables, not benches. Stools, rather taller than 18 inches, and with sloping tops, will probably be preferred by advanced students, as they throw one forward to one's work.

Easels will be necessary for Painting, Antique, and Life-drawing. Height, 6 feet; timber, 3 inches  $\times \frac{3}{4}$ 

inch. These should have a long hinge at the head, and should be braced below by a foot-bar, on the front of the legs. The back leg should be a little longer than the two front ones, and the peg-holes should be  $\frac{3}{4}$  inch.

Cost, say 5s. each.

Tall stools are often used for working at easels, and should be provided in the antique, painting, and life rooms.

"Donkeys."—A "donkey" is, perhaps, as good a seat and rest for drawing from life as can be desired. If made rather narrow in the back it may be used by ladies. The chief objection to the "donkey" is that it is useless beyond its proper function. This is really not a very sound reason, and one would think that a piece of furniture specially adapted to its use would recommend itself to any one. There is a desire latent in almost all governing bodies, however, to make everything serve as many purposes as possible. The result is, of course, an ill adaptation to the specific use for which the article is originally provided; but this is too often deemed only a slight disadvantage.

Cost 12s. each.

For the Modelling Room we shall require stands of two kinds—turn-tables and fixed stands.

Turn-table.—The most convenient form of turn-table is three-legged, with a tray between the legs about halfway up, and a circular top in which is a hole. Down into this hole fits a short but thick pole,

which serves as a pivot for the square board from which it depends to revolve upon. The square board should be of two pieces of wood, the grain placed cross-wise to avoid warping. Sometimes instead of the pole there is a screw which allows the square board to be raised at different heights. This convenience is, perhaps, more than neutralised by the unsteadiness it involves. Sometimes the square board runs by means of rollers on the circular top. These are liable to clog, and it will be found that the one board will play successfully upon the other if black lead be placed between them as a lubricant. Four-legged stools are not so steady as three-legged. The height of these turn-tables may be 3 feet. Sometimes taller ones are made for busts, but their extra height does not bring commensurate convenience when the fact is taken into consideration that, except as stands for busts, these are lumber. Cost in orham, 16s.; in oak, 18s.

Such a stand as here recommended is illustrated on one of Messrs. Lechertier, Barbe, and Co.'s lists, and is quoted in oak at 35s. and 40s.

Large Stands.—A stout framework of  $2\frac{1}{2}$ -inch material is braced horizontally twice, and thus forms the legs, or support, of the stand, and also two shelves on which to keep models. The outside measurements of this frame may be about 4 feet  $\times$  20 inches. The top of the stand is similar to a table, but with the following differences: it projects some  $4\frac{1}{2}$  inches over the front or long sides

of the frame, but does not project at the ends; its projection on the long sides is carried by bars passing across the ends. These bars must be deeper than wide, as they have to support whatever weights are put on the stand, and sometimes these are great.

The table-like top of the stand need not cover the whole frame, for over the frame two surfaces of boarding form a kind of roof meeting over the centre of the stand. Against these surfaces, which slant at about an angle of 65°, the modelling-slabs rest, their chief weight coming upon the shelf-like top already spoken of, and of which only some 8 inches will be visible at either side. It will be best for the slanting surfaces to rest at the top against a horizontal bar, which may itself support a long narrow shelf, useful to stand casts upon. The horizontal bar should be supported by uprights rising at either end of the stand, and rising so high, say 6 feet over all, as to allow another bar to pass along some distance above the shelf, and from which casts may be suspended, or to which they may be secured.

Such a stand as described serves very well for all kinds of modelling (but in the round), both elementary and advanced. Students may work at both sides, but it is rarely that the light is favourable for both sides at the same time.

Probable cost, in orham, 4 feet, £2 15s.; 5 feet, £3; 6 feet, £3 15s. In oak, 4 feet, £3 5s.; 5 feet, £3 12s.; 6 feet, £4 14s.

FURNITURE FOR SUPPORTING EXAMPLES, ETC.

Freehand.—There will be no special requirements for this, the blackboard being entered elsewhere (page 63). The racks upon the students' desks are very useful for supporting copies, and should be provided if possible.

Model Drawing.—The geometrical models are placed at different altitudes above the floor. Provision for their support must therefore be made. The most essential of all are low tables, with tops  $22 \times 30$  in. (imperial), and supported on stout legs. Cost, say, 15s. to 18s. if the top be painted white. The height to the underside of the top, 18 inches; the top should be about an inch thick. These low tables fulfil the requirements of the Government examinations, though the size of the supporting surface or its height above the floor are liable to variation. The conditions are, however, likely to be very generally used, as an imperial board and an 18-inch seat are unmistakable.

A wood background, painted light grey, hinged to the back, and itself in 3 leaves so as to enclose the models, but not closely, might be advantageously added for use in shading from models.

If space permits, a *table*, 2 feet 6 inches high, may be added; one will be necessary for shading from models. Cost from 15s.

The advantage of having the low table instead of placing an imperial board upon the universal 18-inch stool, is that both stool and board are likely to be pressed into other service upon emergency, and this must be avoided. The top of the small table should be painted a pale warm grey.

There are also in the market stands for supporting several copies of a model at different heights; Ablett's stand is one of these (cost £1 1s.): and there are also stands with a grip arrangement, to hold the models in any position, in the air (cost £1 to £1 18s.). For these stands the models require a projecting flange for the vice to grip.

Rack to keep Models upon.—A rack somewhat in the form of a dinner-waggon is better than shelving for keeping models upon. It may be quite simply made, and would cost say £1. There should be 18 inches space between the shelves of it. This is, of course, an article of furniture which can easily be dispensed with, but it would add to the tidiness of the room.

Rack for Drawing-boards.—The boards should certainly be put away somewhere, either stood on edge in cupboards, or lockers, or in racks specially provided. The common form of rack is divided by vertical partitions into a number of narrow compartments, each of which takes one or more boards. It is best to arrange for each compartment to take one board only; the expense is greater, but there is a great saving of trouble afterwards. For the pushing of one board into a compartment already occupied by another very frequently ploughs up the

paper of one or other of the two, if not of both. Even in well-ordered classes it is impossible to avoid this. The compartments may be about  $1\frac{1}{8}$  inches wide for half-imperial, and 11 inch for imperial boards, and the dividing strips ; inch. The boards may slip in either upon their long or short edges, the difference being that if on the long edges the rack will be deeper from front to back, but not so high. With compartments of the size given, and a depth for the rack of 24 inches, a front width of 5 feet 3 inches and height of 6 feet would accommodate 60 imperial boards in two rows; or a front width of 4 feet 3 inches and height of 5 feet 6 inches would accommodate 90 half-imperial boards in three rows, allowing 9 inches for plinth and 18 inches per board.

Cost of these racks £5 each.

The rack may be constructed with one row for imperial and one or two rows for half-imperial boards. A cheap form of rack might be arranged somewhat like a book-slide—a low table with uprights at each end, from 15s.

Cast Drawing and Shading.—Provision will have to be made for hanging casts up, both when in and out of use. As far as possible one position should serve both ends. Wall space lighted from the left will therefore be most valuable. The wall may be prepared in one of the following ways:—

(1) Strips of pitch-pine, say 3 or 4 inches wide, may be screwed to the wall previously plugged;

and into the strips, hooks or stout wood-screws may be screwed.

Cost, moulded on each edge and varnished, about 8d. per foot.

These strips should, if possible, be let in flush with the surface of the wall. One strip may be 4 feet 9 inches above the ground, another 7 feet, and perhaps another 10 feet.

(2) A rod, say gas-tubing, 1 inch or more diameter, may be carried upon hooks screwed to a pitch-pine strip, as above, or to a beam built into the wall, or upon hooks built into the wall. From these rods thongs of steel (Tonks, Limited, Birmingham) may hang by loops riveted at the ends of them. These thongs are slotted, and receive steel or brass hooks to support the casts. The convenience of these thongs and hooks is that the casts can be placed at any height or position.

Cost: Pitch-pine strip and plugging, say 8d. per foot.

Brass hooks to support rods, say 2s. per dozen.

Gas-tubing, bronzed, brazed, 1-inch,  $3\frac{1}{2}d$ . per foot.

Thongs,  $\frac{3}{4}$ -inch, 6-feet lengths, 8d. per foot = 4s. each.

Hooks, steel, 11s. 6d. per gross.

,, brass, 15s. per gross.

Messrs. Tonks also issue a Copper Picture Chain at 14s. 6d. per dozen yards, which serves the same

purpose as the thongs. The price for 2-yard strips is 2s. 5d. as compared with 4s. for the thongs, but the additions necessary raise the cost considerably. Then if we suppose the chains to occur every 18 inches, the cost of wood strip and chain is 3s.

Stands for Casts.—If there is insufficient wall space, or the walls cannot be used, stands must be provided to support the casts. The most comfortable to work at, and at the same time the most convenient and safest, are in screen-form. Size, say, 8 feet long, 5 feet high; boarded vertically or horizontally, not diagonally; and standing on stout feet strutted to the end\_posts. They may be boarded on both sides, and the thickness from front to back may taper upwards. The top bar, which should be stout, may receive screws or hooks; or short pieces of slotted thong, as on the walls, may hang over the top, and thus allow the casts to be hung at various levels, being at the same time quite removable.

Cost in pitch-pine, say, £2 each.

At about 2 feet 6 inches above the floor a shelf 7 inches wide may project. The style and quality of these stands could easily be modified and the cost reduced.

Poles upon cross feet are sometimes used for supporting casts. Though convenient in many ways, two great objections can be urged against them. They provide no background to the cast, and consequently the student is troubled by the cast being surrounded by a probably varying view of the other part of the room. And again, the ease with which poles can be carried about and set in almost any position in the room induces a straggling character into the arrangements; and further, much of the teacher's time is taken up in fetching, carrying, and altering.

It cannot be too strongly urged upon Committees that the artificial lighting of the rooms should repeat as nearly as possible the effect of the daylight. If this is done there will not have to be a great shifting of casts, after the day classes, to suit the evening students.

Painting Stands.—The groups for still life painting will be most conveniently placed upon long tables: top, say, 8 feet × 20 inches, with a permanent strong vertical background at one side (similar to the back of a chair), boarded all up. Beneath the table, and part of it, may be a rack with 4-inch apertures to receive canvases in progress. The background may reach to the height of 6 feet above the ground. The flat table will be about 2 feet 3 inches above the ground; and about 2 feet above it a shelf, 12 inches wide, may project from the back. If the background is of oak, slightly greened with stain, and panelled, it will be useful as a background.

Cost with rack £4 to £6.

Such stands as these will only be necessary if the groups have (by reason of the room being a long one) to stand in the middle of the room. If possible a wall will be chosen against which to place the groups. In this case a table only is necessary, but it may have canvas racks beneath it, or the racks may be separate. Separate racks of course take up more floor space and do not decrease cost.

Antique Statues and Busts.—The statues will require platforms on good castors; the busts, shelves or pedestals.

Platforms for Statues.—These must be specially made to suit the statues. The height is generally 2 feet 6 inches, and cost about 50s, in yellow pine. Redwood painted would be stronger, and cost about £2.

Pedestals to support Busts and Statuettes.—Vertical sides, as these do not catch the dust like sloping, pyramidal sides. These pedestals will not require castors. Height, about 4 feet, and cost about 10s.

The wall behind the antiques should be kept clear and without dado, or with one only about 2 ft. 3 in. high. Shelving, which will receive a good light both during the day and evening classes, will be valuable as support for busts, statuettes, etc. Pedestals should be dispensed with as much as possible.

Stands may therefore be arranged to occupy positions within the room, and may consist of tables 2 feet 3 inches high, with a plain and permanent background, and a strong shelf 4 feet above the ground for busts. Length, say, 10 feet.

Cost about £4 or £5.

Platform or Throne for Life Model.—Thrones vary so much that it is impossible to lay down a plan of what is best, since there are points for and against all forms. The height of the throne is either about 18 inches, or about 30 or 36 inches. For the nude the latter measurement is perhaps the better, the former for the costume model, or head. The lower platform may not improperly stand before the higher, or they may both be on castors and therefore readily movable. The cost of a platform 5 feet × 3 feet × 3 feet high would be about £3 (with castors). The lower platform might with advantage have a turn-table top, a contrivance invaluable in modelling. The turn-table would have to rest on rollers. Its size might be 4 feet square. The cost would probably be about £3.

We need not here consider more elaborate thrones, as where there is any idea of providing them there will be masters to consult. It is well, however, if arrangements can be made for the model to lean against a wall, and also for a cord to be suspended above the model to support an uplifted hand.

In all probability a curtain, perhaps grey-green in colour, will have to be provided to form a background to the model. It should measure about 9 feet high and 12 feet wide, and would cost from 25s. according to the quality of the material.

#### OTHER NECESSARY FURNITURE.

Master's Tables.—In each class-room there should be a table, desk, or chest in which drawings can be placed when finished, and awaiting transmission to the head-master's room. The drawers should be not less than  $33 \times 24$  inches for advanced work, or  $24 \times 18$  inches for elementary work. Some masters prefer double imperial drawers,  $50 \times 33$  inches. So much depends upon the special requirements of the case that the size and style of these desks or tables need not be considered further. The lower part may with advantage be cupboards, and perhaps should be.

Clay-Bins.—One bin divided into two. The smallest size may be taken to be for each bin 3 ft.  $\times$  2 ft., and 2 ft. high at back, and 14 inches high at front. These should be of slate, say, 1 and  $1\frac{1}{4}$  inch thick; and should have wooden lids lined with zinc, which is lighter than lead.

Cost of bins and lids about £6.

Plaster-Bin with Lid.—Say,  $25 \times 18$  inches, and 16 inches high at back, and 13 inches high in front, on framed legs, 15 inches high. Cost, dovetailed, pitch-pine, say, 25s. This need not be lined.

Casting Table.—8 feet  $\times$  2 feet 6 inches  $\times$  2 feet 6 inches high. Yellow pine. Cost, say, 12s.

Trough.—Earthenware, say, 3 feet 6 inches × 1 foot 8 inches internal measurement, and 14 inches high at back, and 7 inches high at front, raised from ground so that the front edge is about 2 feet 6 inches

above ground. The outlet pipe must have a screw cap, to permit cleansing. Water-taps provided over this trough.

Cost of trough from 20s.

Bunsen Burner of good power, with small tripod, and upon a table in the design-room.

Rack for Drawing-boards.—A less expensive rack, and serviceable in a class in which the papers are collected from the boards, is similar to a large book-slide; that is, it has a flat bottom with two upright ends, which may be continuations of the legs below.

# Cost, say, 12s.

Life-Model's Dressing-room.—Some arrangement must be made for this purpose. Possibly a corner of the life-room can be curtained or screened off.

The cost will be at least £1.

Museum Cases.—Cases in which objects of art can be displayed are very necessary. It is a poor locality that cannot lend a few interesting objects, and it is important that provision should be made for the exhibition, under lock and key, and as safe from dust as possible. Cases with glass on all sides and also at the top are best.

Bookcases.—Exactly what form the shelves for books should take will depend very much upon the accommodation at the disposal of the Committee, and upon the arrangements they are obliged to make. The space beneath the museum case may be utilised as a bookcase.

Material Store.—Drawing-paper, pencils, canvases, and a few other materials are generally supplied in the school. If the school be small, accommodation can be made in one of the chests or tables which will surely be provided; but if the school reaches the proportions of a "school of art," a separate chest should be provided. It may have, say, four drawers below and five or six shelves above, in which latter the paper will lie flat. The dimensions should be not less than 32 inches by 24 inches in width and depth, and 4 inches or more may be left between the shelves for the paper. One at least of the drawers should be divided for the proper separation of the different articles.

Cost from 50s.

Cupboard.—A cupboard will be valuable in the design-room, where dry colours, oils, etc., are likely to be in frequent use.

Lockers.—It is a great convenience to students to be able to lock up their colour-boxes, etc., in the school. For this purpose chests of lockers are provided in some schools. They may stand in the corridors, and any apparently useless corner may be utilised by the means thus afforded. The lockers should, if possible, be large enough to take an oil-colour box; perhaps 18 inches wide by 12 inches deep by 10 inches high is the smallest useful size.

Students may hire these lockers at 1s. or 2s. 6d. a year, and leave 1s. for the key.

Hat and Coat Hooks, etc.—There is no necessity

for us to more than mention these matters. There will be numerous expenses of a similar class, which are not likely to be forgotten.

Ladder.—There should be a light ladder by which to reach the higher casts.

Head-Master's Room.—In most schools of art a private room is provided for the head-master; and it is generally lighted from the north or north-east, so that it may serve as a studio.

By "head-master's room" we mean, here, that room in which the master does that part of his work which is concerned with organisation and supervision, rather than with actual teaching. Here he may interview students, and here the drawings, or other works executed, may be mounted and kept.

We must provide the following pieces of furniture:—

Table.—9 feet by 4 feet 6 inches, at least. Cost, from £3.

Writing-Desk, or Secretaire.—Cost, from £5. A legged writing-table, with locked drawers, etc., is quoted by one firm at seven guineas, packing and carriage extra. The desk should have drawers which will take foolscap size, and there should be at least six of them.

Copying Press.—Foolscap size. Cost, say, £2 5s.

Drawers in which to keep Drawings.—Different masters will arrange these in different ways, but all will agree in having a large number of them.

Sometimes, it is true, the drawings are all placed in one drawer irrespective of their class or kind; but this is hardly likely to be in a school which is well organised or in which reference is occasionally, if not constantly, made to the students' records. The mounting of the drawings, the sending of them to Kensington, or the arranging of them for exhibition or delivery to the students, are operations all facilitated by a previous orderly arrangement. Sometimes this will be by subject, or according to class. That is, all the designs may go into one drawer, all shadings into another, and so on; or each drawer may represent a letter or two letters of the alphabet, so that all C's works are together in one drawer, and can be immediately found. The arrangement of these matters will generally be left to the master who is going to carry them out, but it may be of service for us to say a word or two more upon the matter.

For preparing for sending to Kensington the works have to be in alphabetical order some time, so that the alphabetical arrangement will be of assistance in this case. For local prize competitions the arrangement by subject will be better; but, of the two, precedence should lie with the sending to Kensington, because the bulk of drawings will be greater. The drawers might indeed be used subject-wise till the local competition, if the date of that falls before April 1st, and these may be lettered alphabetically, to receive the drawings after the

competition, and to hold them till they are packed for Kensington. Probably twenty-four drawers will be sufficient, and of these some may hold three letters or more, leaving perhaps four drawers for holding test-drawings, etc.

Some masters prefer imperial-sized drawers, some double-imperial, and we need not remind our readers that twelve double-imperial drawers will equal twenty-four imperial ones in capacity if their depth be equal. Internal measurements, say, imperial—34 inches by 25 inches, by 6 inches deep; or double-imperial—50 inches by 34 inches, by 8 inches deep.

Cost of 24 imperial drawers in yellow pine probably £9.

The top of the whole set of drawers should not be more than 3 feet 3 inches high. If only 2 feet 9 inches high the table before-mentioned may be dispensed with; for the sorting and cutting which would be done on the table could then be done on the set of drawers, which would, however, take up more floor space if low, and also be rather more expensive. There is little doubt, however, that a table will be required for other purposes.

Canvases, clay models, and the like could be accommodated in large pigeon-holes, which may either stand upon the floor, or be fastened against the wall above, but not upon the set of drawers unless the supports were only at the ends and did not interfere with the open space of the top. It will be best to keep the top of the drawers clear, as

sometimes a great deal of space is required for sorting and examination.

Cost £3 10s. to £4.

In all these furnishings the more space and surface provided the better.

Blackboards.—These will be necessary in the elementary, lecture, and design rooms. They may be either loose to place on easels, or already mounted on stands, or fastened to the walls. If against the walls (the preferable arrangement) two or three may be hung or placed together, either to pull up by means of pulleys, or to slide before one another. The latter is the cheaper and for some things preferable arrangement. Cost of such, 6 feet × 4 feet, with fixing, £1 to 25s. each.

Frames\* will be needed for displaying examples in. A few should take a paper  $36 \times 24$ , a few  $24 \times 16$ , but most  $30 \times 22$ . They should have wooden backs readily removable. Those issued by Messrs. Mansell and obtainable of Messrs. Chapman and Hall are very suitable. The form has been specially modified to suit the requirements of Art Schools.

<sup>\*</sup> For particulars, see advertisement, pages 1 and 2.

## CHAPTER V.

COPIES AND MODELS\* NECESSARY FOR TEACHING FREE-HAND, MODEL, GEOMETRY, AND PERSPECTIVE.

Freehand.—The copies placed before the students are either printed on paper or cardboard, or are drawn upon the blackboard before the class. Sometime's large copies or very simple casts are substituted. A school must certainly be provided with—

Small Copies for individual students;

Large Copies to place before a class, or several students; and

Simple Casts.

Numerous sets of small freehand copies are in the market. Choice should be made of those printed in bold line, and in which construction and massing are evident, and in which also forms are used which it would be well for the student to remember. As those who find themselves obliged to make some choice may know little of these matters, we shall

<sup>\*</sup> For particulars of copies, models, etc., under this section, see advertisement, pages 2 to 6.

mention a few sets which have come under our notice, for their guidance.

E. R. Taylor, Freehand Examples, 60 cards, 7 by 5 inches, 5s.

F. G. Jackson, Freehand Cards, 150 cards in 5 sets, 11s.

Bacon & Co.'s Freehand Cards, Standards VI. and VII., 36 cards, 2s.

Bacon & Co.'s Freehand Copies, 24 cards in 2 sets, 3s.

Frazer's Renaissance Ornament, 2 books, 3d. each. Poynter's South Kensington Freehand Copies (cards)—

Elementary, 4 packets, 9d. each, = 3s.

First Grade, 6 packets, 1s. each, = 6s.

Second Grade, 4 packets, 1s. 6d. each, = 6s.

All these have something special to recommend them. The first embody the experience of the eminent head-master at Birmingham; the second, by the well-known author of text-books on Design, are beautiful in form; the third are carefully systematised; the fifth well illustrate a kind of ornament which has been very extensively used by the examiners for the Department in the May Examinations. Poynter's being largely renderings of pieces of historic design, have special interest on that account. Some of the lines, the Frazer's for instance, may be doubled.

Large Copies.—The finest large copies are, perhaps—

Jacobsthal's "Grammatik der Ornamente," 7 parts of 20 plates each, unmounted, £3 13s. 6d.; mounted on cardboard, £11 4s. The parts may be had separately, unmounted, 10s. 6d. each.

Then, beside these, there are—

E. R. Taylor's Enlarged Diagrams (same designs as the small cards), elementary set of 30, 9s.; advanced ditto, 9s.

Bacon's Freehand Charts, 24 designs on 12 boards, 10s. 6d.

Hatton's Charts of Ornamental Details, 15s.

We shall not doubt that in most schools the elementary part of freehand study will be done from the blackboard. It is in many ways the best method. What, then, are the printed copies for? So long as there are Government examinations there must be work of a similar character done in the school; and, moreover, there is nothing against small copies, except that the work from them is hardly objective enough, and has a touch of the impractical character of desk-work. The large copies are in some ways even better than the blackboard drawings; they are actual "things," or some of them are, and it is actual and objective work that must be fostered as much as possible. And we might almost make this rule, that, good as copies which are merely exercises may be, the less permanently they are before the student the better. Thus such forms as stars, Greek honey-suckles, and the like are necessary and valuable early exercises, but it is

questionable whether printed examples are needed of them. Very probably the very fact of a student's seeing a permanently printed example of such forms sows the seed in his mind which produces that inartistic and unnatural "belief" that freehand is a methodical, dull, and distinctly penal business, and no amount of beautiful copies will clear his mind of it. Now, it must be well known to most people, that many published freehand copies are teaching examples and nothing else; they have neither nature nor beauty, except what is occasional and accidental. All such should be excluded, and the kind of diagram they illustrate drawn temporarily on the blackboard, and then relegated to the past.

On the other hand, diagrams which have a natural or decorative beauty, for instance Nos. 57, 58, 59, 60, 37, 38, 39 and 40 of Poynter's Elementary S.K. drawing-book, are joys for ever, and good freehand copies as well. And following the thought onward, the larger the printed copy the more necessary it is that it should depart from a mere teaching example.

The copies named above will be found to accord, on the whole, with what has been said above. If selections are made, we would advise ordering first the most advanced numbers on each line; the elementary numbers may merely repeat the blackboard work.

Freehand Casts, etc.—In connection with what has been said above, such flat casts as those recently

published by Brucciani, of panels from the Tomb of St. Antonio, at Padua, may be mentioned as very suitable. The size of each is about  $24 \times 20$  inches. Nos. 9–5 and 10–6 seem such as one might select. Cost 3s. each.

The Jacobsthal's will provide us with a number of designs sufficiently complete, too, drawn on a large scale and carefully tinted, and perhaps outlined with the brush. To them we may add Tarsia outlines, though these are, unfortunately, drawn in a very thin line. Photographs, such as those of "11 Pilasters from Certosa of Pavia," 15s. nett, may be given to intelligent students for enlargement and flat washing.

Of the Jacobthals one must say that they are unequal in interest and complexity, but not in value, and should certainly be included in the list. If a school cannot afford the price of the whole set mounted, the whole set unmounted should be had, and several frames provided to exhibit them in, as well as an imperial-sized drawer to hold them. See page 63.

Model Drawing.—In almost all art classes the study of model drawing commences with the drawing of geometrical models, cubes, prisms, cylinders, and vases. The syllabus of the Department's examination in the elementary stage sets down the number and kinds of models as follows:—Cube, large; cone; cylinder; hexagonal prism; triangular prism; square prism; square pyramid; ring;

vase—long - necked bottle; vase—wide - mouthed. Since the size as well as the kind is also determined, these should be purchased from some firm recognised as supplying the correct models.

Cost, £2 16s. net.

If possible, two sets or more should be provided, as it is convenient when explaining the drawing of a particular object to have more than one example of it in the group fixed.

The above are all the models specified on the syllabus, and therefore, from a sordid point of view, all that are necessary. We should propose, therefore, that the numbers of geometrical models be increased, even for the study of the elementary stage; for we take it that the passing of examinations is not the end and aim of life, though the Kensington system has done its best to make it so.

We will add, then, the—

Skeleton cube, 6s. 3d. net.

Majolica vase, 8s. 6d. net, and the

Small cube, 3s. net, from the advanced set; and also—

Pentagonal prism, 5s. 6d. net.

Treble cross, 5s. net.

Disc, 5s. 6d. net.

Half disc, 4s. net.

Hexagonal slab, or short hexagonal prism, 5s. net.

Frame, 4s. net.

Hexagonal pyramid, 5s. 6d. net.

Triangular pyramid, 5s. net.

Vases of a shape more suitable for the early teaching of the round form, 5s. and 6s.

There are many other shapes published, as well as simplified common objects; we have, however, indicated what are sufficient for a school to commence with, and the Committees of schools of any size, or who wish to further add to their examples, will no doubt consult their master, or respond to his wishes in this respect.

Advanced Model Drawing.—In the eyes of the Department advanced model drawing differs from the elementary in being shaded, drawn on a larger scale, and in the addition of one difficult model, a skeleton cube with a vase, a small cube, and a sphere, to the list of models on the elementary syllabus.

These four models cost 24s net. Or, since they and the elementary form together the advanced set, that set costs £4 net, and should be provided independently of the elementary set, and will probably be used in another room.

The subject is commonly, and used formerly officially to be known as "shading from models," a term which is much more appropriate. The models must be kept clean, and painted occasionally with "flatting" (white lead and turpentine, with a little japan gold-size). The red and the glazed vases must not be painted, as probably the representation of the tone or glaze is an item of the syllabus.

By advanced model drawing the writer would prefer to understand that kind of model drawing which deals with forms removed somewhat, or considerably, from the simple geometrical shapes. Common objects are often gross and palpable makeshifts, being either the much-used objects about the building, or the clumsy renderings of them which are included in some sets of school models. These are all very well, but one feels that a student who can be passed on at all from the geometrical models given above can be trusted with objects which do not remind one so much of playthings. We shall make a rule here, similar to that in freehand, that when we depart from the candid honest geometrical model, we admit no models which are renderings of objects, but rather choose such common objects as can be conveniently put away, and are sufficiently simple in form to follow on to the elementary studies. We may name, then,—

Glass-ware.—Tumblers, wine-glasses, Rhenish drinking-glasses, amphora-shaped wine or spirit bottles.

*Metal.*—Copper kettle, distillers' measures (copper), pewter-pots and inkstands.

Books, with stout bindings.

Shells, of large simple form.

Model drawing is generally illustrated and explained upon the blackboard. Diagrams to hang on the walls or to be put in frames are also useful. The set issued by Mr. Barfield illustrate the effect

of perspective upon the model, and those published by Messrs. Bacon deal rather with practical imitation.

Decorated Models.—Much may be gained by the employment of geometrical models on which simple designs are traced. With the same pattern on each of, say, three sides, the effect of foreshortening may be more readily grasped. Messrs. Chapman & Hall have been the first, I believe, to issue decorated models, the design being produced in fretwork within the face of the model.

Geometry.—Considered as a Science Subject, the Department give a list of indispensable models, etc. The geometrical models used for model drawing cover nearly all the list, though wire models would perhaps be preferable. To complete the list we require: cone, with three sections, 5s.; model showing projections, traces, and intersections of lines, 30s.; and blackboard, T-square, etc.

The blackboard is already mentioned on p. 63. Ordinary T-squares are cheap enough, but one which maintains its position will be preferable, as the master's hands are free for manipulating the set-squares, etc. A T-square to lock upon the edge of the board is in Messrs. Chapman & Hall's list, as also a horizontal rule devised by the writer. This rule maintains its position and is readily adjusted, while the set-square may stand upon it. Cost, 3 ft., 9s. net, to 6 ft., 15s. net.

Blackboard ruler, set-square, protractor, and

compasses will be necessary. These will not cost more than  $\pounds 1$ .

Perspective.—The blackboard, with its rulers, setsquare, protractor, and compasses are all that are absolutely necessary, but such a glass-plane as Ablett's is sometimes useful, though an ordinary glazed frame can be made to serve.

## CHAPTER VI.

CASTS.

The selection of casts is, perhaps, the most trying of the duties devolving upon those who have to provide for an art school. Those who inquire into the matter will soon find that casts, irrespective of the workmanship, are of several kinds. There are casts from old or modern sculpture, whether figures or ornament; there are casts of old ornaments repaired and revived to what may be supposed to have been their original form; there are casts of natural forms, as of fruit, fish, etc.; and casts which, although "ornamental" in one sense, are anything but really ornamental, and are simply creations for teaching purposes. These last produce probably a pernicious effect upon the minds and artistic sense of our students, which it is almost impossible to counter-act. The principle I laid down as regards freehand copies will apply here—" never to provide permanently any form which it is not advantageous to remember." I do not expect this principle to be readily adopted, nor do I expect it to be acted upon by schools whose standard of art is measured by the pounds, shillings, and pence of the Science and Art Department. But if the principle be sound, then the fourth class of casts enumerated above, those merely made for teaching purposes, go at once; casts of fruit, too, fall under a similar ban.

These casts have no doubt gained their ground by their simplicity, that is, they are not so complicated as to be not readily attacked by the student; and this is important. But the attempt should always be made to find pieces of ornament which, without any smoothening, will be simple enough for the purposes for which they are required.

Unfortunately, such casts as one would prefer are only to be obtained with great difficulty and expense, and so one has to fall back upon the regular school casts. The writer does not guarantee that the casts spoken of are good in workmanship, or that those the numbers of which are given form the best possible selection; he merely gives them as being in his opinion an adequate selection, and for the guidance of those who do not know the casts.

# CASTS FOR ELEMENTARY SHADING.

Lechertier, Barbe & Co.:\* Nos. L7, L8, L12, L14, L18, L19, L24, E8, E11, E12, E16, E18, E20, E22.

14 casts, cost £1.

<sup>\*</sup> See advertisement, page 7.

D. Brucciani & Co.: Nos. 2483/4, 2483/1, 2315/4, 2315/5, 2315/6, 2315/10, 2403/7, 2483/9; 8 casts, cost £1. Also 2584/6, 2584/9, 2s. 6d. each; 2482/7, 1482/13, 2482/14, 3s. each; 2484/1, 2484/2, 2484/4, 3s. 6d. each; 8 casts, cost £1 4s. 6d. Also 494B, 1s. 6d.; 2594, 6s.; 2556, 4s.; 3 casts, cost 11s. 6d.

Total, 34 casts, cost £3 16s.

£1 Selection.—Lechertier: E8, E16, E22, L7, L11, L12, L13, L14. Brucciani: 2315/6, 2483/4, 2484/2.

11 casts, cost £1.

Taylor and McKechnie's Casts.\*—This is a set of 14 casts very suitable for shading and modelling. They are of a fairly large size. These casts are bolder in relief than those generally given in the Elementary Shading Examination, and some are distinctly advanced in character. They might very well be shared by the elementary and advanced classes. In style they are interesting and varied.

Cost, including package and packing, £2 5s.

## CASTS FOR ADVANCED SHADING.

Brucciani: 2312, 5s.; 2313, 5s.; 2314A, 7s.; 2536, 10s.; 2537, 7s. 6d.; 345, 4s.; 484B, 5s.; 1640, 7s. 6d.; 2608, 7s. 6d.; 2670, 4s.; 2583,

<sup>\*</sup> See advertisement, page 6.

15s.; 493, 4s.; 1634, 4s.; 1635, 4s.; 2555, 4s.; 496, 3s.; 344, 4s.; 2112, 7s. 6d.; 484A, 5s.

19 casts, £5 13s. 0d.

The last three are illustrated in the "Directory," pp. 266, 267.

The following are classic rosettes: 345, 493, and 344 (4s. each), of which 493 is a "sunflower," and the most complicated, and 344 curled leaves, and 345 plain leaves.

2670 is a bold egg and tongue (4s.).

496 is a diamond rosette (3s.).

484A and 484B are the well-known pomegranate and egg-plant respectively (5s. each).

2555 is a bold Roman honeysuckle, to which 2556 in the elementary selection belongs (4s.).

2313 (5s.), 1640 (7s. 6d.), and 2608 (7s. 6d.) are Gothic capitals, the two latter from Stone Church and Sante Chapelle, and very good.

2312 (5s.), 2314A (7s.), 2536 (10s.), 2537 (7s. 6d.), 2583 (15s.), are Gothic 13th century ornament.

The largest of these casts is 2583. It is 3 feet 3 inches  $\times$  1 foot 6 inches.

The general size is about 14 inches.

Or, if we cut the list down, it will stand thus:—

Rosettes 493 (4s.) and 344 (4s.), Egg and Tongue 2670 (4s.), 484A (5s.) and 484B (5s.), 2555 (4s.), 1640 (7s. 6d.), 2537 (7s. 6d.).

8 casts, £2 1s.

78 GUIDE TO ESTABLISHMENT AND EQUIPMENT OF

Or, again:—

344 (4s.), 484B (5s.), 2555 (4s.), 1640 (7s. 6d.), 2537 (7s. 6d.).

5 casts, £1 8s.

Taylor and McKechnie's. See note to Elementary list.

OUTLINE FROM CAST, OR ADVANCED FREEHAND.

The first studies in this subject should be done from the casts used in Elementary Shading Cast, and any of the casts used for shading will be suitable as examples. The casts given in the examination are generally low in relief and of cinquecento style, but there is no reason that the examinations should be limited in this way. The Louis XII. pilasters and the Madeleine scroll have been for a long time the representatives of the subject, and are mentioned in the syllabus. We feel therefore obliged to put them first on the list, although the Louis XII. pilasters are not always very distinct, and the Madeleine, though clear, is rather more correct and formal than beautiful. We shall quote the numbers and prices from Brucciani's list :--

Louis XII. pilasters No. 476A, 5s. ,, ,, 476B, 5s.

These have the capitals and bases, and thus show the whole effect of the pilasters. Other pilasters of the series are Nos. 476°C to J.

Madeleine No. 478A1, Nest and Scroll, 8s.

Also other scrolls separately, Nos. 478B, C, and D.

## CASTS FOR OUTLINE FROM CASTS.

Brucciani: Nos. 2306, 10s. 6d. (2480A, B, C, and D, 2s. each); 346, 3s.; 2639, 4s.; 2597, 10s. 6d.; 494, 4s.; 2301, 7s.; 2302A, 7s.; 2222, 3s. 6d.; 476A, 5s.; 476B, 5s.; 476C, 5s.; 478A1, 8s.

12 casts, cost £3 12s. 6d.

The last number is the Madeleine pilaster, that is, the nest and one scroll of it. 476A, B, and C are three of the Louis XII. pilasters. 2597 is a beautiful vine pilaster, 2222 a bold acanthus sprig by Sansovino, 346 is a rosette, as also is 494, both fairly complicated and in bold relief. Nos. 2306, 2639, 2301, 2302 are cinquecento acanthus scrolls. There is no Gothic on this list. 2480 are capitals of Louis XII. pilasters, and are not included in the 12 casts of the total.

Or we may reduce the list to—
Madeleine 478A1, 8s.; 476A, 5s.; 2597, 10s. 6d.;
2301, 7s.; 2222, 3s. 6d.; 2639, 4s.
6 casts, £1 18s.

# CASTS FOR ELEMENTARY MODELLING.

Taylor and McKechnie's. 14 casts, cost (with packing), £2 5s. Several of the casts in this set are very suitable for elementary modelling.

Brucciani's: Nos. 2536, 10s; 1631, 15s.; 493, 4s.; 2221, 1s. 6d.; 2222, 3s. 6d.; 2556, 4s.; 2716, 7s. 6d.; 496, 3s.; 2537, 7s. 6d.; 344, 4s.; 345, 4s.; 2677, 3s. 6d.; 2594, 6s.; 2224, 7s. 6d.

Of this, Nos. 2536 (10s.) and 2537 (7s. 6d.) are Gothic.

Nos. 1631 and 2224 are bold Roman acanthus.

Nos. 2221 and 2222 are fragments of acanthus by Sansovino.

No. 496 is a vigorous diamond rosette; No. 345 a rosette of six plain leaves, 344 of six *curled* leaves, 493 a "sunflower" rosette.

No. 2556 a bold simple Roman ornament.

No. 2594 a study-piece of acanthus type—bold. 14 casts, cost £4 1s.

Or, reducing by cutting out the larger casts: Nos. 344, 4s., curled; 496, 3s.; 2222, 3s. 6d.; 2594, 6s.

## 4 casts, 16s. 6d.

It may be well to describe the casts in the Government Syllabus of the Elementary Modelling Examination. Some of them are in the list just given.

	•	Ŧ.	s.	a.
No.	344, rosette illustrated on page 266			
	of the "Directory,"	0	4	0
No.	345, rosette, six plain leaves	0	4	0
No.	346, rosette, bent leaves considerably			
	serrated, and with a little ornament			
	between each	0	3	0
	Carried forward	0	11	0

	£	s.	d.
$Brought\ forward \qquad \dots \qquad \dots$	0	11	0
No. 2315. Ten casts, of which Figs.			
2, 3 and 5 on pages 264 and 265			
of the "Directory" are three: the			
set of 10	1	0	0
494a, small rosette of two rows of eight			
plain petals	0	1	-6
1542e, Louis XII. pilaster "flame" (with-			
out capital)	0	5	0
1543e, Louis XII. pilaster, "vase at top"			
(without capital)	0	5	0
476a, as 1543e but with capital (flower)	0	5	0
476b as 1542e but with capital (head)	0	5	0
478 Madeleine pilaster (full length)	1	0	0
1641, Gothic tracery—no foliage	0	3	0
20 casts, cost, a	£3	15	6

The first three lines, the rosettes, are good, though the third is rather complicated; the fourth line consists of the painfully sleek elementary casts already represented in the Elementary Shading list. The fifth line, or small rosette, is less objectionable, and a tolerably good study. The Louis XII. pilasters are models rather too subtle to place before "elementary" students; moreover, they are repeated in the two following lines, which, having capitals, at the same price, are preferable. The capitals are, indeed, rather suitable exercises. They may be had separately, Nos. 2480A and 2480B, 2s. each, and their size makes them more convenient for use. The

Madeleine, especially its lowest member, is a good study, though painfully exact and spiritless. No. 478 is the whole pilaster: 478A (10s.) gives a nest and a scroll to the tip of a leaf; 478A<sub>1</sub>, (8s.) gives the nest and scroll, but not all the leaf.

## CASTS OF THE FIGURE.

Full-sized Antiques.—The Department only allow examinations in Antique Drawing at which there are at least four life-sized statues, whether antique or from such modern sculptures as are approved by the Department. The following are the figures generally found in our schools:—

Venus of Milo, £6 6s.

Dancing Fawn, £4.

Germanicus, £6 6s.

Discobolus, £5.

Antinous, £5 5s.

Gladiator, £5.

Hermes (Farnese), £10 10s.

Hermes and Dionusos, £10 10s.

Jason, £7 7s.

Cupid, £4.

Anatomical by Houdon, £6 6s.

Athlete Vaison, £10.

Theseus, £4 10s.

Ilissus, £5.

Faun Rondinini, £5 5s.

Of these the first six are most frequently seen in

the Government syllabuses, probably because they are the oldest as casts, and most likely to be found in the generality of schools.

The prices here given are from Messrs. Brucciani's list.

It is a great question whether so much antique will be "done" in the future as in the past, though there is no doubt that the real study of it is keener than ever it was. In the writer's opinion it will be best to procure statuettes where possible. "Reductions" are not good in some ways, though it is remarkable how nobody grumbles at the small "Slave" who would be horrified beyond expression at the sight of a reduced Discobolus. The full-size statues are good, but very cumbersome, and moreover they swallow up capital as well as space, and preside in a depressing manner over the whole school.

When four or six full-sized statues have been procured, attention should be paid to smaller casts, and where these are not felt to be reliable, photographs should be procured. These are cheap enough (Mansell quotes 3s. for some  $21 \times 15$  inches, 1s. for  $10 \times 8$  inches).\*

<sup>\*</sup> See advertisement, page 11.

## SELECTION OF STATUETTES AND FIGURES IN RELIEF.

- \* No. 459, Hercules (bronze), British Museum, 10s.
- \* 2269, Slave by Michelangelo, £1 1s.
- 460, Apollo (B.M.), 12s.
- \* 2267, Faun (Naples), 12s.
- \* 2873, Anatomical, arm up, 7s. 6d.
- 2874, Anatomical, resting, 12s. 6d.
- 2273, St. Cecilia (Donatello), 6s.
- 2275, Madonna and Child, 3s. 6d.
- 2362, (Ghiberti) Figures in niche, 5s. each (say 2).
- 2358, (Ghiberti) Creation, 10s.
- \* 2356, (M. Angelo) Madonna and Child, £1 10s.
- \* 2355, Victory tying Sandal, Athens, 12s.
- 498, Girl and Wreath, 14s.
- \*T. 17 B.M., Venus torso—stooping to tie, 5s.
- 39 B.M., Wounded Lioness (Assy.), 7s. 6d.
- 107 B.M., Two Horses, two Lions, one Rider (Assy.), 15s.
- 2391, Draped Aphrodite (Cyrene), 5s.
- 2574, Narcissus, £1.

Mausoleum Frieze (Gold No. 10) £2 5s.

\* 29\*, Charioteer from Mausoleum Frieze, 12s.

Busts.—\* 2401, Julius Cæsar, 6s.; 2257, Barbarian, 8s.; 2339, Apollo (Pourtales), £1; Aberdeen Head, 10s.; Apollo Muscegetes (similar to Pourtales), £1; 2634, Brutus, 10s.; \* 2326, Juliano de Medici

<sup>\*</sup> If means do not allow of all being purchased, select these.

(Michelangelo), 10s.; \*134, Uzzano (Donatello), 7s. 6d.; \*36 Beniveni (Donatello), 7s. 6d.

Masks.—\* 2848, Dead Head, 4s.; \* Dante (new), 4s.; \* 2541 (Della Robbia), 3s. 6d.; 2542 (Della Robbia), 4s.; \* 461, Moses (Michelangelo), 5s.; 2849, Female Saint, 5s.

Limbs.—1626 and 1627, Anatomical Arm and Leg, 3s. 6d. each; 2924, Female Leg, 5s.; Male Arm, closed fist, 5s.

N.B. The above numbers are Brucciani's.

<sup>\*</sup> If means do not allow of all being purchased, select these.

## CHAPTER VII.

EXPENDITURE CONNECTED WITH THE TEACHING OF ADVANCED SUBJECTS.\*\*

Under this heading we shall briefly review the requirement for teaching Designing, Painting, etc. We shall consider that we are thinking only of the equipment of a small and not too well financed school, for there is virtually no limit to the provision which may be made of appliances, casts, examples, and books, useful, and to a great measure indispensable, in the thorough teaching of the more advanced subjects.

It is unfortunate, in some ways, that so many art subjects can be taught, in a fashion, without any appliances. Committees are prone to think that beyond certain casts and models nothing is really needed, so that in very many, perhaps the great majority of our schools, there are few or no examples worthy of the name. It cannot be said too plainly or too often, that examples are of the utmost importance in the teaching of all art which is more than servile imitation. Wherever taste,

<sup>\*</sup> For particulars of books, photographs, etc., under this section, see advertisement, pages 7 to 12.

adaptability, fitness, and style are at all objects of study, examples of fine work must be provided. A teacher may lecture eloquently, or by his numerous drawings put something good before the students, but if all the permanent things about the school are the usual casts for shading and freehand copies his words and example can have but little effect. The Department used to make grants toward the acquisition of examples, if not to supply them entirely. These grants have been discontinued, though one or two publications, excellent in their way, have been presented to some of the schools. Excepting these gifts, and those made by the trustees of the British Museum, absolutely no examples have been added to many of our schools since the Department ceased giving its grant.

Design.—The subject of design is one in which examples play a very important part. Where possible, original works should be acquired, but where reproductions only can be obtained, they must take the form of photographs, casts, and electrotypes. Messrs. Elkington and Co. issue a price list of their electrotypes. Unfortunately the prices are necessarily high, but the value of the reproductions cannot be over-estimated, while, being metal, they are far less likely to be damaged than objects in any other material. Casts of carved ivories are among the cheapest and most satisfactory reproduction of old work. For these Messrs. Chapman and Hall are agents.

If we say that casts are invaluable as examples of decoration, we make an almost unnecessary statement. The number of casts issued by one firm and another is so great, that one is quite bewildered in trying to determine which out of the host should be provided for the teaching of design. One is compelled to admit that the number of casts which are suitable for this purpose is small and even meagre. The majority of casts procurable are Roman and cinquecento acanthus foliage. This conventional ornament is all very well in its way, but so many examples of it have been reproduced, that other, and in many ways, finer styles, have been crowded out.

For the teaching of design we could almost do without casts, since photographs give us very nearly all we want to know. But, supposing that we are going to provide casts, then we shall perhaps see that they must illustrate, first, what is ornament, or what ornament is; and, second, how ornament grows, or the suitability of ornament to material and position.

The old notion was, that acanthus foliage was the ornamental foliage, and therefore examples of it at the periods of its most perfect technical development (Roman and cinquecento) were, as has been said, multiplied without restraint. This exclusive adoration of one particular style has, or is, passing away; and the question has still to be answered to every student—What constitutes ornament? We are not here concerned with the solution of this

problem, and it need, therefore, only be pointed out what examples we should need to collect together to illustrate what ornament is:—

Etruscan, or Greek terra-cotta reliefs, showing honeysuckle, anthemion, and also spiral scrolls and naturalistic work probably intertwined with it.

Roman acanthus, and naturalistic work as ivy, laurel, or vine.

Romanesque and Byzantine. Panel from Bonn. Lintel from Moissac. Columns from Dijon.

Early English foliage from Stone Church, from Nôtre Dame, Paris, etc.

Decorated foliage, maple, vine, etc.; these, in many instances, from wood carvings.

Late decorated and perpendicular work might be illustrated by photographs.

Italian, Renaissance. Both the acanthus and naturalistic foliages.

As regards the representation of the adaptation of ornament to specific materials and positions, or, in other words, how ornament takes its form from the character of the material and workmanship, casts of wood-carving, repoussé work, and embossed leather will be specially suitable.

Photographs, as has been said, are of great value in the teaching of design. One of the most important sets is that of photographs of casts in the Museum of Sculpture in the Palace of the Trocadéro, Paris. The subjects of these are chiefly architectural; that is, they are ornaments or figures

applied to architecture. Three folios of these have been issued and priced, £2 2s., 30s., and 30s. The photographs of objects in the Architectural Museum, Westminster, published by Bedford Lemere and Co., are equally valuable. One needs photographs of all kinds of work, of tapestry, woodwork, metal-work, plaster-work, etc. Amongst publications directly bearing upon this matter, are "Studies from the Museums," published by Messrs. Sutton and Co. Of this series, the set edited by Miss Rowe on wood-carving and woodwork is precisely the kind of thing required.

Mr. Griggs's photo-lithographs of examples of Italian art, Persian art, etc., are invaluable and excellent substitutes for the originals; cost, say £3. Many other publications of a similar character are in the market, some of the most valuable being found on Mr. Batsford's list. Of periodicals, Arte Italiana—published by Ongania, Venice,—and Hirth's L'Art Pratique are very good, and it would be well if a volume of one of these, or of a similar publication, could be added to a school year by year.

So numerous, indeed, are the books and illustrations which are of use, that one hesitates even to form a small selection. The more examples the better will be the opinion of every design-master, and in many ways it will be found better to spend money upon these than upon cumbersome casts. What casts are provided should be not only choice, but of the finest execution; that is, the moulding

should be of the first class. Casts of small bronzes of figures in relief and delicate ornaments will be invaluable. They need neither be large nor bulky, but whatever they are must be exact reproductions of the detail of the originals.

Design Books.—Among books we must mention the following, which stand apart somewhat from the books of examples:—

Jackson's "Decorative Design," 7s. 6d.

Jackson's "Theory and Practice of Design," 9s.

Lewis, F. Day, "Nature in Ornament," 12s. 6d.; net 10s.

Lewis, F. Day, "Anatomy of Pattern," etc., 10s. 6d.

Walter Crane's "Panpipes" (7s. 6d.), and others of his picture-books.

Howard Pyle's "Pepper and Salt," etc.

Handbooks to South Kensington Museum,  $\pounds 2$  6s.

Viollet-le-Duc's "Dictionnaire Raisonné de Mobilier."

"Le Moyen Age," by Lacroix and Sere.

Meyer's "Handbook of Ornament," 10s. 6d. net.

I would strongly advise the inclusion of the Viollet, even if funds are low.

Examples of *plant-form* should also be provided. There are works by Charles G. Haité and F. E. Hulme. Messrs. Chapman and Hall have in the press a book, by Messrs. Lilley and Midgley, on Plant-Form and Design.

It is absolutely essential, however, that growing plants should be provided. Arrangements can easily be made, as a rule, with a nursery-man for the supply either of plants or cuttings. It is well, however, if several growing plants can be purchased and kept, even in window-box fashion.

Monochrome Painting.—Copies will have to be provided for this purpose. The photographs known as—

- "12 Photographs of Selected Details."
- "12 Photographs of Select Details, Venice, No. II."
  - "12 Selected Photographs of Panels."
  - "12 Selected Photographs of Pilasters."

These cost 15s. per set. I have placed them in order of preference; or, rather, I think the first set the best.

Architecture.—For the study of this subject we could write a long list of requirements. But the following will perhaps be sufficient for a commencement:—

Spiers, "Orders of Architecture," 8s. 6d. net.

Spiers, "Architectural Drawing," 8s. 6d. net.

Bloxam, "Principles of Gothic Ecclesiastical Architecture."

Paley, "Manual of Gothic Mouldings."

Smith, T. Roger, and Slater, "Architecture: Classic and Early Christian," 5s.

Smith, T. Roger, "Architecture: Gothic and Renaissance," 5s.

H. H. Statham, "Architecture," 12s.

Gwilt, "Encyclopædia of Architecture"—£2 12s. 6d.

Mitchell's "Building Construction," 2s. 6d.

To which, for the sake of those who have to do their "architecture sheet" for Group 1, we may add Peter Nicholson.

We can easily extend our list with the following:—

Viollet-le-Duc's "Lectures on Architecture" (in English).

Stevenson's "House Architecture," and the works of Richman, Fergusson, Brandon, Sharp, and Parker.

Perspective Geometry and Sciography.—Malton is a fine old book on perspective, but probably the newer books will be sought for.

Dennis, "Second Grade Perspective," 2s. 6d.

Dennis, "Third Grade Perspective," two parts, 7s. 6d. each.

Pratt's "Sciography," 7s. 6d.

The geometry taught in schools of art is so varying a quantity that it is difficult to name a work which will exactly suit.

Principles of Ornament.—The character of the questions set at the examination render it necessary that Ward's "Principles of Ornament" (7s. 6d.), Wornum's "Analysis" (8s.), and Moody's "Lectures and Lessons" (4s. 6d.) should be provided. Owen Jones's "Grammar of Ornament" (£3) is also mentioned in the syllabus. It is a pity that so

expensive a book is not of more value nowadays in the teaching of design. Still there are some plates for which substitutes are not easily found.

Still-Life Painting.—Some little outlay will be necessary under this head. £5 would provide a fair stock of simple things, but the Committee should endeavour to get old chairs (of good period, not the false old-oak clumsy productions which are so frequently seen), old oak panels, brass and copper bowls, oriental pottery, etc.

Anatomy.—It is very necessary that there should be in the school an articulated skeleton, as well as parts of the same. A complete skeleton costs from £10 to £20. A half set costs about £3 10s. Limbs 16s. each, and a skull 21s. Of books there is none better than Marshall (31s. 6d.), though Holden's "Osteology" is excellent for the bones. Sparkes's "Anatomy" reproduces most of the plates of Holden. The anatomical statues are entered among the casts of the figure.

## CHAPTER VIII.

# ART CLASS EQUIPMENT.\*

In this chapter we shall capitulate the requirements for art classes. In Scheme I. we consider the equipment necessary for a class taking the Elementary Drawing Certificate, or the subjects which constitute it; and in Scheme II. that of a class taking the more advanced work known as the "Intermediate."

## Scheme I.

Equipment for Class covering the Requirements of the Elementary Drawing Certificate, and held in Rooms not specially fitted for Art Classes.

We shall suppose that the rooms are in use as schoolrooms, that new furniture cannot be accommodated, and that whatever is provided for the art class must be locked up in cupboards at the close of the class-meeting.

The requirements of the Elementary Drawing Certificate are—

<sup>\*</sup> For particulars of articles under this section, see advertisement, pages 2 to 6.

Elementary Freehand Drawing. Elementary Model Drawing. Elementary Shading from Casts.

Geometrical Drawing.

Perspective is not now a subject on the elementary syllabus.

The Room and its Furniture.—If the class is to be held in the day-time, the lighting should be such as described on p. 38, and rooms should be selected which provide that arrangement. If the class is to be held at night, the gas-lights already provided will probably be suitable for the Freehand, Model, and Geometry classes. The special requirements necessary for the study of Light and Shade are given in the proper place. Except for shading, large single burners are not always the most convenient, as in some positions shadows are cast from the student's hand or head upon his paper, which are most undesirable. The light should fall from the left in all cases.

The Desks and Seats should be such and so arranged that the master can visit the students individually while they are working. Separate desks are best, but are not likely to be found in schoolrooms. Dual desks are almost as good, but long tables, though suitable for Freehand and Geometry, are not so suitable for Model and Shading.

In the following pages the requirements for teaching each of the subjects are given; and in the first place those only which are absolutely essential are named, so that an idea may be formed of the cost of the cheapest efficient equipment. In Scheme II. follows a list of such additions as, while rendering the classes more efficient, cannot be denominated indispensable.

## FREEHAND CLASSES.

The following will be necessary:—Blackboards.
Copies or examples.
Students' materials, etc.

Cupboard.

Blackboards.—If the class is held in a school-room there will probably be blackboards available. If not, they will have to be provided, and possibly locked away in the cupboard. In this case the width should not be greater than 30 inches. Two boards will be required, one for simpler, the other for more difficult copies. The students may thus be separated according to their ability.

2 Blackboards,  $42 \times 30$  inches, at 9s. = 18s.

The thick unframed boards are, perhaps, most convenient.

2 Easels, broad head, 6 feet, at 9s. = 18s.

There are some to be had without cross-bars, and which fold very completely, but are less steady. Price 6s. each, or less. The steadiest folding-easel is the "Hatherley" (Winsor and Newton), price 8s. 6d.

Copies and Examples.—These must be of two kinds—

Small, for individual use;

Large, for class use.

Small Copies:  $\dagger$  E.R. Taylor's Freehand Examples, on 60 cards,  $7 \times 5$  inches (Chapman and Hall), 5s.

- † F. G. Jackson's Freehand Cards, Meiklejohn's series. Standards III., IV., and V., at 2s. each; VI. and VII., at 2s. 6d. each (A. M. Holden). 150 cards in all, in cases, 11s.
- † J. P. Frazer, Renaissance Ornament, 2 books, 3d. each.

Poynter's S. K. Freehand Drawing Series.

Large Copies: E. R. Taylor's Enlarged Diagrams, 60 cards,  $21 \times 15$  inches, elementary set of 30, 9s.; advanced set of 30, 9s. = 18s.

# Cost of above copies, £1 14s. 9d.

The cost may be reduced by making the following selection:—

E. R. Taylor, 60 cards, small, 5s.

F. G. Jackson, Standards VI. and VII., 5s.

J. P. Frazer, Renaissance Ornament, on cards, say two copies of the one set, 1s.

E. R. Taylor, Enlarged Diagrams, advanced, 9s.

# Total cost, £1.

If the class numbers more than twenty, it will be well to duplicate those also marked  $\dagger$ .

Test Copies.—It is convenient to hold two or three Test Examinations in the class, say on the following dates: December 20th, March 10th, and April 20th; and it is an advantage to have the same copy for all the students. To meet this demand Messrs. Chapman and Hall have decided to issue Test copies periodically.

Price, 25 copies (same diagram, on paper), 1s.

It will be generally agreed, however, that even an elementary freehand class is likely to be more successful if the work is carried beyond the bare requirements of the Government Examination. Tinting in water-colour, drawing with the brush alone, and simple stencilling are valuable additions to the curriculum, and can accompany the simplest freehand. The fact that advanced work is being done encourages the beginners. Most of the work will be practice-work, or time-studies, and will necessarily look unfinished. Some of the studies should, therefore, be carried further, outlined with the brush, and tinted in water-colour. Examples suitable for this work will be found among the copies by Jackson and Jacobstahl.

Boards, etc.—Drawing-boards are certainly comfortable additions. Unless a desk slopes very much and has its front edge low, it is by no means a pleasant surface to draw upon. Nevertheless it is sometimes best to have drawing-books. These may be had made of the same paper (cartridge) as is generally used in our school, and folded so that 2 sheets make 12 leaves,  $11 \times 10$  inches. With thin tinted smooth paper backs these can be retailed to the students at 2d. each, the price of

two sheets of cartridge. Tissue-paper interleaves are a nuisance. Drawing-books can readily be stacked in the cupboard.

Drawing-Boards.—Half imperial paper is  $22 \times 15$ , and the boards should take this size. Smaller boards are inconvenient.

Price, say, 30 at 2s. 6d. each, £3 15s.

#### Model Drawing Class.

Model drawing, such as is required at the Government Second Grade Examinations is generally taught from one group of models at a time, and hence the seats are arranged in a circle, or in an arc of a circle. It is important that the student's desk should face, or be directed towards the models. Desks which can be shifted about are therefore most convenient, and although single desks are to be preferred, double desks may serve instead.

If the desks cannot be brought to a curve several groups must be set up.

We shall require—

- 1. Blackboard.
- 2. Models and stands for same.
- 3. Students' materials.
- 4. Cupboard.

Blackboard.—The provision made for the Freehand class will be sufficient also for this. See p. 97.

Models and Stands for same.—The models are generally required to stand about 18 inches above

the floor. The height of 2 feet 6 inches is also frequently used, as well as a position above the eye. The furniture in the room can probably be utilised for support; but it may be well to provide a stool 18 inches high.

Cost: Box stools, 2 at 3s. 6d. = 7s.; legged stools, 2 at 5s. = 10s.

Upon the stool or whatever support is found suitable is placed a drawing-board, sometimes a half-imperial, sometimes a full imperial ( $30 \times 22$  inches).

Cost of 2 imperial boards at 4s. 9d. = 9s. 6d.

As both stools and boards are apt to get used for other purposes, it will be well to have them joined together. The result is rather cumbersome if they have to be packed away. The cost would probably be reduced by having them made by a joiner.

Models.—One set Elementary Models as required by the Syllabus for Second Grade Model Drawing.

Cost, net, £2 16s.

Explanation Charts.—There can be no doubt that drawings of models assist students to grasp the principles of foreshortening, and several sheets of such diagrams are frequently seen in our students' hands. The charts prepared by Mr. Barfield are suitable for hanging in the class-room. They may be had on linen with rollers, or unmounted. In the latter form they require at least one imperial frame to exhibit them in. The teacher will, of course, always explain the drawing of the models, on the

blackboard, but if he can leave an echo of his teaching before the class in chart form much will be gained. Students who are dull of comprehension can study the matter further unaided, and the teacher's time will thus be economised.

Cost: 10 imperial sheets, unmounted, 8s.; mounted, 18s. Cost of glazed imperial frame, to exhibit charts if unmounted, hinged back,  $30\frac{1}{2} \times 22\frac{1}{2}$  inches, 7s. and 9s. 6d. net.

## EQUIPMENT FOR CLASS IN GEOMETRY.

Furniture.—The ordinary school desks or flat tables will serve admirably for this subject. Separate tables having tops of small area are not advisable, as they do not provide sufficient accommodation for the numerous instruments required. In fact, the larger the table the better. If the tables are flat blocks of wood, solid, 15 inches long and 3 inches square in section, should be provided for resting the boards upon and form a sloping surface.

Blackboard.—The blackboard provided for the Freehand class will serve in this case also; but, if such is not available, the following arrangement must be adopted:—

i. If put away after class—

Blackboard, not framed, 42 × 30 inches 9s. 0d.

Hatherley Easel, 6-feet ... 8s. 6d.

- Or, ii. If to stand in the room— Blackboard  $42 \times 30$ , on stand, 30s. to 42s.
- Or, iii. To put away, but hinged for solid geometry demonstrations,  $42 \times 30$ , 18s.
- Or, iv. To stand, hinged for solid geometry, £3 15s. Or, v. To stand, Haggerty's,  $48 \times 36$ , £3 15s. or £4 10s.

Drawing-Boards.—Half-imperial, as for Freehand, 2s. 6d. each. Clamped boards are more easily damaged than battened.

Rule, etc., for Blackboard.—

Trans, oro., for Buconoocura.		
	$\mathcal{S}_{\bullet}$	d.
Hatton's horizontal rule (3 ft.) net.	9	0
Marle's set (rule, set squares, 45 and 60)		
Rule 3s., set squares and pro., 4s. 6d	7	6
Compasses	5	0
	21	6

# DRAWING IN LIGHT AND SHADE, OR ELEMENTARY SHADING CAST.

Lighting.—Assuming our class to be held in a room generally used for some other purpose, the lighting will have to be modified. The proprietors of the room may allow a ring of lights or a large sun-burner to be substituted for the present arrangement; but, if they will not allow so radical a change, they will in all probability admit single burners of thirty-candle power in place of the small burners.

Circumstances differ so much that it is impossible to lay down any plan which could be followed in all cases. Small burners about 6 feet above the ground and 18 inches from the wall are not unsuitable. It is always difficult to light both the casts and the students' papers. The ideal arrangement is, of course, that in which one light is supplied to light the casts, and one to light the students' papers. This requires screens of some kind to keep the students' light from the casts, and, if possible, to relieve the students of the discomfort of a glaring light before their eyes. A light which is near the cast will be too far from the students, if any number are seated at the same cast, and a light over the students will perhaps light the cast but inadequately.

Casts.—Messrs. Lechertier, Barbe, & Co. issue a good set of very elementary casts. The forms are on the whole more beautiful than the generality of elementary casts. Their full list of 51 casts is priced at £4 2s. Or we may select Nos. L7, L8, L12, L14, L18, L19, L24, E8, E11, E12, E16, E18, E20, E22, and—

The cost of these will be £1.

Messrs. Brucciani & Co.'s Casts.—Of the casts illustrated on the Government Syllabus of the Elementary Examinations, Figs. 1 and 4 are Brucciani's Nos. 2483/4, and /1. Figs. 2, 3 and 5 are Brucciani's Nos. 2315/6, 2315/5 and 2315/10. All these are priced by the publishers at 2s. 6d. each,

and they occur in sets of 10 each, and each set is priced at £1. The five above mentioned and illustrated on the syllabus form a good basis for a selection, but we may raise the number to eight by adding the Ivy-leaves No. 2315/4 and Nos. 2403/7 and 2483/9.

## Cost of the eight, £1.

It would, of course, be cheaper to take one set of 10, the cost being also £1, but we should lose the variety. The sets are very equal in standard, and as the casts for the examination are provided by the Government, there is nothing gained by having exactly what happens to be illustrated on the syllabus.

Then of Set No. 2584 we might add Nos. 6 and 9; No. 6 being 3 holly-leaves, No. 9 two oak-leaves.

## 2 at 2s. 6d = 5s.

Of Set No. 2482, the following—ribbon-scroll, No. 7; bead-moulding, No. 14; leaf-moulding, No. 13.

#### 3 at 3s. = 9s.

Of Set 2484 Nos. 1, 2 and 4. These are rosettes of good form.

3 at 3s. 6d. = 10s. 6d.Or 31 casts in all, £3 4s. 6d.

Those of Messrs. Lechertier, Barbe & Co., although smaller and not sufficient for the examination, will be found suitable for practice, if the class meets for one or two hours only. There is some advantage in having a complete drawing made of a cast, and for some students this is impossible if casts of any complication are given to them. Those illustrated on the syllabus are too large to be completely drawn and shaded in one lesson, until the student has made considerable progress.

If we have to find a *smaller selection* even than that given above, we may make the following choice:—

Lechertier: Nos. E8, E16, E22, at 1s. 4d. each = 4s.

Nos. L7, L11, L12, L13, L14, at 1s. 6d. =7s. 6d. Brucciani: No. 2315/6, No. 2483/4, No. 2484/2 = 8s. 6d.

## Total, £1.

Cupboard.—It may be that blackboards, boards, models and casts have all to be stowed away in a cupboard at the close of the class. The size and character of the cupboard will depend upon the number and class of the objects it has to contain, and these vary according to circumstances, no exact design need here be indicated. It may, however, be of some assistance if we briefly mention the space which will in all probability have to be provided.

Blackboards,  $42 \times 30$ , will require a space 48 inches high, and the cupboard 31 inches deep, or the shelves and drawers may lie back 2 inches and so allow the boards, and folded easels, to stand before them, the cupboard-doors folding over, and holding them upright.

Drawing-boards may have their longer edges horizontal, and will thus require 18 inches vertical space. Battened boards, though stronger, take up more room than clamped. If the papers are taken from the boards at the close of the class, the student sticking the drawing-pins in his indiarubber, the boards may be packed more closely. Clamped boards require  $\frac{3}{4}$  inch each, battened require  $1\frac{1}{2}$  inch each. The space for the boards should be divided vertically every 9 inches.

Imperial boards and imperial frame for charts require  $32 \times 24$  inches and  $36 \times 28$  inches respectively, and depth of 2 inches each. These will stand on their short edges.

There should be two or three drawers, in size about  $36 \times 24 \times 7$  inches deep. If drawing books are used they may be stacked in the space usually occupied by boards; slides may be arranged to support them, and thus utilise the full depth of the cupboard. Or they may be accommodated in drawers.

The models will require shelves with plenty of space above. The full elementary set, as in the syllabus, stands in a space 2 feet 3 inches × 1 foot 9 inches × 2 feet high, above which 3 inches must be allowed. Casts may hang on the inner surface of the doors, if strong and high, or must hang in the cupboard. They should not lean against one another. Space must also be provided for blackboard, T-square, rulers, etc., and also a drawer for

freehand copies. Models to illustrate Solid Geometry will also probably have to be accommodated with shelving.

## SCHEME II.

Equipment for a Class for the Study of Intermediate Subjects; held in Rooms not specially fitted for Art Classes.

The term "intermediate" is not employed in the "Directory," but is in common use to distinguish those subjects which, though more advanced than the "Elementary," do not yet treat of art in its final form. That is to say, the work is still done from examples or models constructed merely as exercises. For example, the models used in shading models are never seen in every-day life, nor will the students trouble themselves further about the casts used in the study of shading from cast, after they have gone through the course of study for which these are provided. And the same remark applies to all the other "Intermediate" subjects. And these are—

Elementary Perspective (subject 1c).

Advanced Freehand, or Outline from Cast (3b).

Advanced Model Drawing or Shading Models (5a).

Advanced Shading from Cast (5b). To these may be added—

Elementary Modelling (18a), and Elementary Design (22c).

The class we are now considering is sure to be merely an extension of the Elementary Course dealt with in Scheme I. We shall consider, therefore, that provision is already made for the teaching of—

Elementary Freehand, Elementary Model, Elementary Shading from Cast, and Geometry;

and the arrangements made for those subjects will, in many cases, be available also for the Intermediate of which we are now to treat. Thus, as we already have an Elementary Shading class, the same lighting will serve also for Outline Cast, Advanced Shading from Cast, and Shading Models, and the provision made for Geometry will also serve for Perspective. Of course, if only one set of instruments, etc., is provided, two classes cannot use them at the same time, but this is a matter easily arranged.

#### Perspective Class.

Furniture.—Same as for Geometry.

Blackboard.—A blackboard, the greater dimension of which is 42 inches, is rather small for working out a problem definitely and correctly. It is, perhaps, a mistake to work problems on the board very carefully, as the students often merely imitate the appearance of the diagram, and are not so careful

to grasp the method. However, if a board is used at all, one not less than 48 inches is desirable, and it should be such as can be used horizontally; so that the boards on stands, being nearly always vertical in their longer dimension, are not so suitable unless they are wide as the loose boards are long.

Rule, etc.—T-square, rule, set squares, and compasses, as for Geometry (p. 103). Say 21s. 6d.

Drawing Boards, as for Geometry and Freehand, see p. 100.

Books.—Dennis, 2nd grade, 2s. 6d.

## OUTLINE FROM CAST (ADVANCED FREEHAND).

The students should certainly commence their study of this subject by drawing in outline the casts provided for elementary shading. This is really a matter of importance, as the treatment of receding edge is, after all, the only addition in this subject to what is done in Elementary Freehand, or from the flat. Now that the Department provide the casts for examination, there is every reason why a broad view should be taken of the subject, and the casts chosen of such patterns as will give the student wide experience.

The arrangements made for shading will apply also to this subject. We shall only have to add a few suitable casts. The selection given on page 80 will be suitable.

The casts provided for Advanced Shading will also be useful.

# SHADING MODELS (OR ADVANCED MODEL DRAWING).

The syllabus of the examination requires those stipulated for Elementary or Outline Model Drawing, with the addition of a small cube, a sphere, a skeleton cube, and a vase. The cost of these four is £1 4s. That of the Elementary set is £2 16s.

# Or £4 complete.

If the class is large it will be well to provide a complete set for the Shading, irrespective of those for the Outline Drawing. But if some can be spared from that set, they may be borrowed and some expense saved. Nevertheless, the Shading class should possess at least the two vases, the ring, cylinder, cone, and hexagonal prism of the Elementary set; for even if there is not a large Elementary class, these models will be too constantly in use to admit being shared.

Cost of these £1 13s. 3d.; add necessary additions £1 4s. = £2 17s. 3d. as lowest possible estimate.

Of course it is possible for both the Outline and Shading classes to use the same models, on different evenings, but it is by no means desirable that such arrangements should have to be made.

Board, to Support Models.—An imperial board will be necessary, and, if no drawing-boards are to

be used, a half-imperial must also be added, for sometimes two models will become necessary.

Cost: imperial, 4s. 9d.; half-imperial, 2s. 6d. = 7s. 3d.

The surface and edges of the board should be painted white, or a very pale grey.

## ADVANCED SHADING FROM CAST.

Here, again, we have only to provide more casts, and may make the following selection:—

Brucciani: Nos. 493, 4s.; 2670, 4s.; 476, 3s.; 484B, 5s.; 2555, 4s.; 1640, 7s. 6d. = £1 7s. 6d.

Hanging of Casts.—The committee will have to face some expense for supporting the casts while in use. They must be so placed that the light falls upon them from the left, at about 45 degrees, and must not be so high as to cast long shadows. Circumstances will differ so much that it is almost impossible even to give suggestions.

## ELEMENTARY MODELLING.

We shall require—Clay,
Clay Bin,
Slabs to work on,
Casts,

and shall have to consider what Tables shall support the work.

One great objection to clay modelling is the dirt (clean dirt though it be), which results from

particles of clay falling from the hands, or from lumps or crumbs of clay falling from the board. Even if a sheet were spread upon the floor to catch the errant morsels, the clay could hardly be kept upon the sheet. The soles of one's boots would tread it into the sheet, and, moreover, carry in on to the floor beyond. Nevertheless, a sheet would offer considerable protection. And if trays 2 feet square, with a ledge 3 inches high, were provided, in which the student would keep not only his model on its slab but also the clay he used, and the crumbs which cannot be avoided, a much greater cleanliness would result.

Clay.—Costs from 3s. to 6s. per cwt., and in all probability 5s. would pay for an ample supply. The nearest potters will supply it. If too soft and greasy to the touch a little silver sand or pumice may be added. The white clay, not the red, should be procured.

Clay-Bin.—As we are now considering a class at which everything has to be put away, our bins must be locked in a cupboard. Perhaps the cupboard may be low, and the top open like a desk, exposing the clay in the bins. There should be two bins; size, say,  $22 \times 17$  each, and 12 inches deep. They must be lead lined, or of slate if it is not too heavy. The lower part of the cupboard may accommodate the students' trays, etc., on shelves.

Cost of bin, say £5 to £10; cost of trays, say 3s. each.

Slabs to work on.—These are sometimes merely battened boards, sometimes slabs of slate. An ordinary school slate serves very well, but with too rough usage is liable to break. Damp clay holds very firmly to slate.

Casts.—Brucciani, Nos. 2677, 3s. 6d.; 2222, 3s. 6d.; 2556, 4s.; 2594, 6s.; 344, 4s. = £1 1s.

#### ELEMENTARY DESIGN.

The requirements for this subject will be the same as for Geometry or Perspective, with the addition of some examples, and vessels to hold water.

Boards, half-imperial, at 2s. 6d.

Blackboard and its Rulers.—Probably those provided for Geometry can be used also for this subject, but if it be provided separately the cost will be as given on page 103.

Gallipots to hold water.

THE END.



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" if with Foot-rest and I	Bar		0	7	9	0	8	9	
Chairs									
Student's Desk			0	17	0	-0	18	6	
" at any angle to within	1 75° m	av he	·					_	
laid horizontal or inclined with varia		•••	0	18	0	0	19	6	
- m 11	ore top	20s.	0	10	O	U	10	0	
Easels	•••	5s.							
A law Dayler	• • •		0	11	e	0	10	e	
Academy Donkey	• • •	•••	-	11	-		12	6	
Model Stand	• • •			16			18	0	
Modelling Stand (4 ft.)		• • •		5			15	0	
", " (4 ft. 6 in.)	• • •			10		4	$\frac{2}{4}$	0	
,, ,, (6 ft.)			4	5	0	5	4	0	
☐ Rack for Models		20s.							
", "(6 ft.)  Rack for Models ", "Drawing Boards ", "if with doors, extra ", "if bars, hanger, and padlock				10		7	$\frac{5}{0}$	0	
2. , if with doors, extra		• • •	1	10	0	2	0	0	
8 ,, if bars, hanger, and padlock	s instea	d							
. ( "	25s. e								
Rack for Half Imperial		•••	6	5	0	-6	18	0	
Stands for Casts (8 ft. long 5 ft. high)									
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24 Drawers for Drawings, Yellow Pine		t £9.							
Model Drawing: Low Table, 22 in. ×		* 0							
tron	n 15s. to	18s.							

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Imperial	$30\frac{1}{2} \times 22\frac{1}{2}$	7s.	6s. 6d. ,	6s. ",
Atlas	$35\frac{1}{2} \times 28\frac{1}{2}$	$9s.\ 6d.$	8s. 9d. ,,	8s. 6d. ,,

STYLE II.—With fixed Battens and special Metal Fastenings, most convenient and durable. Prices: Royal size, 2s.; Imperial size, 2s. 6d.; and Atlas size, 3s. each extra to Style I.

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#### FREEHAND EXAMPLES.

- FREEHAND EXAMPLES. By E. R. TAYLOB, Head Master of the Municipal School of Art, Birmingham. On 60 Cards, 7 by 5 in., gradated up to the 7th Standard and the 2nd Grade Examination. 5s.
- ENLARGED DIAGRAMS. By E. R. Taylor. On 60 Cards, 21 by 15 in., gradated up to the 7th Standard and the 2nd Grade Examination, for the collective teaching of large Classes. Explanatory Diagrams are shown for the Teacher's guidance, but so small or light as not to be seen by the Class. Two Parts: Elementary Set of 30, 9s.; Advanced Set of 30, 9s.; complete, 18s.
- RENAISSANCE ORNAMENT. Art School Series, by I. P. Fraser. 2 Books, 12 Examples each, 3d. each.
- FREEHAND DRAWING CARDS. By Frank G. Jackson, of the Birmingham Municipal School of Art. Standards III., IV., and V., 2s. each. VI. and VII., 2s. 6d. each, in strong cloth cases.
- GRAMMATIK DER ORNAMENTE. By E. Jacobsthal. In 7 Parts of 20 Plates each. Unmounted, £3 13s. 6d.; mounted on cardboard, £11 4s. The Parts can be had separately.
- POYNTER (E. J.), R.A., issued under the superintendence of—
  THE SOUTH KENSINGTON FREEHAND DRAWING SERIES.
  Elementary. Two packets, books 4d., cards 4 packets, 9d. each. First

- Grade. Six packets, books 4d., cards 1s. each. Second Grade. Four packets, books 1s., cards 1s. 6d. each.
- BACON'S EXCELSIOR GRADUATED DRAWING CHARTS. Designed by F. Steeley and B. H. Trotman, Art Masters and Inspecting Teachers of Drawing in the Birmingham Board Schools. In 5 Sets. Standards I.-II.; III.; IV.; V.; and VI.-VII. Each Set contains 24 Sheets, size 20 by 15 in., with Ornamental Cover. On strong paper, 5s. 6d.; on cloth, 10s. 6d. per set.
- BACON'S EXCELSIOR SECOND GRADE FREEHAND. Copies 3 Sets, 1s. 6d. each. Drawing Cards, 4 packets, 1s. 6d. each.
- R. G. HATTON'S CHARTS OF ORNAMENTAL DETAILS. Set of 10 Charts, 15s., or in Two Parts, 8s. each, in colours, of floral and conventional forms, suitable for Elementary Design and Freehand. These Charts are intended to be placed before a class in Elementary Design as supplying the form of flower, leaf, etc., which is to be introduced into the exercise. They will be boldly printed in harmonious colours, on tough paper, and in such a manner as to render them suitable for imitation by direct brushwork. In 1 Set, 15s.

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Note.—One exterior and one interior view will, ordinarily, go to each Cathedral.

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